

**Problem-based learning: a catalyst for enabling and disabling
disjunction prompting transitions in learner stances?**

by

Margaret Savin-Baden

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Abstract

This study demonstrates that while problem-based learning (PBL) may promote many of the abilities currently high on the agenda in British higher education in the 1990s, the wider implications of the implementation of PBL are more complex and far reaching.

This multi site study was qualitative and post-positivist in its design and process. The focus was to: *examine the expectations and experiences of staff and students in different professional and educational environments who are involved in using PBL in some way.* What emerged was a new model for understanding the nature of learner experience on PBL programmes, characterised by significant diversity between espoused aims and values, what happened in practice and in relationships between staff and students.

Disjunction is a concept seen by many as a starting point for learning. (Jarvis, 1987; Weil, 1989). Students are often offered through PBL the opportunity to own their learning experiences and develop independence in inquiry. It is these very opportunities which seemed to prompt different forms of disjunction. This research extends earlier work around the concept of disjunction in learning, and the notion of enabling and disabling forms in relation to three different understandings of “learner stance”. These three stances present a multifaceted view of learner experience. The emergent model suggests ways in which students are prompted to reflect upon and reconstruct their learner identity. This in turn may result in transitions within their personal, pedagogical and interactional stances as learners within particular environments.

The study concludes by suggesting that the notion of learner stances and transitions which occur in relation to them, offer a framework for broadening current understandings of learner experience on diverse PBL programmes, whilst arguing that PBL may prompt new forms of transformation in relation to students’ past, present and future constructions of learning and of themselves as learners.

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It is to John that I dedicate this thesis.

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Introductory note on stylistic conventions

Throughout the thesis there are a number of stylistic conventions which it is pertinent to highlight at the outset. They are as follows:

Use of first person

In this study I sought to explore the expectations and experiences of staff and students involved in programmes in which PBL had been implemented. Through the post positivist methodology I adopted I sought to explore people's experience in the context of their lives. As a researcher there were values which I felt were key to this type of research methodology and which influenced the way in which the inquiry was conducted, one of which was the centrality of my own voice (the others are presented in the methodology chapter). This study was not to be one in which I as researcher stood outside the project itself. As the human data collecting instrument, I was central to data collection and interpretation, my voice was as pivotal to the thesis as those with whom I worked and learned. Thus the use of the first person throughout the text was critical to the upholding of this stance.

Tutors' names

The range of sites, names and status necessitated that I distinguished between staff and students. Wherever possible site names and profession are included next to a staff or student's name in order to promote clarity. Throughout the text tutors' names, at what ever site, are distinguished by the use of italics.

Confidentiality

All names (forenames and family names) used throughout the thesis are fictitious and do not relate in any way to staff or students actual names.

Citation of field records

The citation of field records, which are excerpts from my research diary, are signalled with notation 'field record' in the text throughout Chapter 3.

Overview of the thesis

Part 1 of the thesis comprises an introduction to the study, the relevant literature and an explanation of the methodology adopted. It concludes with an overview of the research sites used in the study in order to set the scene for the second section of the thesis. Part 2 begins with a chapter which frames the three data analysis chapters and introduces the model which emerged from the study. The data around three key concepts; personal stance, pedagogical stance and interactional stance are then presented. Part 3 begins with the discussion which presents and explores the model in depth and concludes with a consideration of the implications of this model and recommendations for further research.

Part 1

Chapter one: Introduction

This chapter introduces the study, describes how it came about, and discusses the relevance of the study in the context of current trends in higher education.

Chapter two: Literature review. A web of belief ?

This chapter offers an overview of PBL as a specific concept and approach and reviews the competing understandings of PBL. It then explores the way in which PBL has been applied in various disciplines and educational environments. The research undertaken in this field is presented. The chapter concludes by reviewing the ways in which this study addresses some of the gaps in the existing research.

Chapter three: Methodology. The quest for certainty

This chapter describes and discusses the methodology chosen, the conduct of the study and explains the way in which the data were analysed and interpreted. A critical reflection on the process of carrying out the study is included.

Chapter four: Four faces of Problem-based learning

This chapter introduces the sites in which the research was undertaken. Four narrative accounts of the curricula in which PBL was occurring are described within their institutional and professional contexts. The espoused intentions of staff involved with these programmes are also presented.

Part 2

Chapter five: Dimensions of learner experience

This chapter explores three interrelated sets of concepts which seemed to arise from this cross site investigation into PBL and through which transitions in learning may occur. It begins with a definition and exploration of three different dimensions of student experience as revealed by this study. These 'Dimensions of Learner Experience' comprise the notions of Personal stance, Pedagogical stance and Interactional stance. The second part of this chapter introduces the notions of enabling and disabling elements which affect the learner experience. It also introduces the notion of transitions in learning and the means by which transitions may occur.

Chapter six: Dimension 1 Personal stance

This chapter explores the different domains within this stance. It demonstrates, by exemplification with quotations from students, the concept of personal stance.

Chapter seven: Dimension 2 Pedagogical stance

This chapter explores the notion of pedagogical stance and the different domains within this stance. The specificity of pedagogical stance in relation to the other two stances is drawn out.

Chapter eight: Dimension 3 Interactional stance

This chapter explains both the notion of interactional stance and the way in which the different domains of interactional stance were at issue for students.

Part 3

Chapter nine: Discussion. From rooks, pawns and bishops

This chapter discusses issues arising from this study, relevant to both those directly involved in PBL and also those concerned with the broader issues of educational innovation and professional development in the context of a changing higher education system. It explores the model which emerged from this study and examines the application of this model in the light of adult learning theory and higher education today.

Chapter ten: Reviewing our fictions

The final chapter explores my conclusions in relation to two areas. Firstly, the types of opportunities for learning which PBL would seem to promote. Secondly, curricular priorities which would need to be addressed in a course which had implemented PBL. The chapter concludes by suggesting areas which require further research as a result this study.

Part 1.

Chapter 1. Introduction

Introduction

This chapter introduces the study and explains the context from which it evolved. It then explores the influences which prompted and enabled PBL to emerge at a period of worldwide transition in higher education. Finally the remit of the study, its aims and its purposes are defined.

The context of this study

In recent years there has been a growing interest in the field of PBL, but few studies have considered PBL from a learner-centred or qualitative perspective. PBL emerged from the work of Barrows in 1963, who realised that although medical students were able to find out a patient's history and carry out an examination, they had a paucity of knowledge that they could apply to the problems with which clients presented. Barrows set out to design a medical school curriculum based solely on small group, student-centred learning which they called problem-based learning - defined by Barrows and Tamblyn as:

“ . . . the learning which results from the process of working towards the understanding of, or resolution of, a problem”

(Barrows and Tamblyn, 1980: 1)

PBL was also a response to the need to train more medical students at a faster rate, but it was seen as a promising solution to many of the difficulties in professional curricula generally. These included curricula overload due to a steady increase in basic scientific knowledge, over emphasis on the memorisation and recall of facts at the expense of scientific reasoning and a failure to integrate basic scientific concepts into clinical practice (Barrows and Tamblyn, 1980). The majority of studies undertaken to date in the field of PBL have been in the United States, the Netherlands and Australia, while in the United Kingdom (UK) little of note has been conducted despite PBL's growing popularity in a number of fields.

In 1986 I began teaching on a course which used PBL to develop the treatment planning and problem-solving skills of occupational therapy (OT) students. Being a tutor on this course challenged me to question the effectiveness of PBL as a method of learning. The advantages seemed to be that it facilitated students' critical thinking and aided the development of aspects of treatment planning skills. It also provided a means by which students learned to research and evaluate knowledge which had meaning for them as learners. Despite these benefits, students battled in the quest to learn how to learn for themselves, finding it difficult to relate the theory they had learned through lectures to the practical problems they were required to solve through PBL. Watching students struggle raised, for me, a large number of issues and questions about using PBL as a method of learning (Savin, 1989). These included:

- The variety of guidance given to the students by the tutors - some tutors were considerably more dogmatic and directive than others.
- The length of the seminars often seemed inadequate (90 minutes) - they were slotted into the rest of the timetable. Students complained of being pressured by having too little time to complete the work required.
- The students worked in groups of ten, but the issues about *how* the group worked together were rarely addressed by staff or students.
- I felt that most of the staff teaching in the seminars failed to understand *why* PBL was being used (myself included) - except that it was thought by staff to be 'a good thing'.
- Some students appeared to be frustrated in using PBL as a method of learning, and others appeared to be very negative about PBL seminars.
- PBL seminars were being used not only to acquire a body of knowledge, but also to learn treatment planning skills. This seemed to complicate further the use of this method of learning. Students seemed to be able to solve the problem and plan a treatment programme almost instinctively and invariably failed to apply the body of knowledge they had spent hours acquiring.
- There seemed to be very little relationship between PBL and the rest of the curriculum:
 - it seemed to be at odds with the lectures and taught seminars
 - the case studies used in the PBL seminars did not correspond with the subject areas being studied in the curriculum as a whole. For example, the students might be participating in a PBL seminar about hip replacements during a block of the curriculum where the lectures and other seminars related to psychiatry

Many of these issues were particular to the course in which I was involved. However I felt there were probably wider implications relating to the use of PBL in other courses in higher education, such as:

- The role of the tutor in PBL
- The tutor's influence on the quality of the learning experience
- The complexities students experienced through working and learning in groups
- Staff and students' understanding about the motives for using PBL
- The factors which needed to be considered when introducing PBL in terms of students' prior experiences and learning styles
- The interrelationship between PBL and the underlying assumptions of the curriculum and of the institution
- The nature of the problem scenarios used in PBL and assumptions implicit within the construction of these scenarios
- The relationship between the learning and the assessment methods

As a tutor on a course which used PBL at a time when the UK higher education was being restructured (1987 onwards), I felt that PBL offered staff and students a number of new and exciting opportunities. It seemed to me that PBL was a method of learning which could accommodate new political, economic, educational and professional concerns, while also being a means of managing scarce resources, coping with a larger and more diverse student group, making education vocationally more relevant and putting learning rather than teaching on centre stage.

The United Kingdom context for Problem-based learning

Over the last decade there has been increasing pressure on higher education to reexamine and make explicit its aims and outcomes. The move towards a market model of higher education has paralleled increasing demand for accountability to the public and State and for greater vocational relevance. The 1987 White Paper insisted that:

- “Higher education should:
- serve the nation more effectively
 - pursue basic scientific research and scholarship in the arts and humanities
 - have close links with industry and commerce and promote enterprise”

(Department of Education and Science, 1987: iv)

Closer links between higher education and industry have promoted changes in curricula generally and supported an emphasis on the development of personal qualities and skills for life and work.

The pressures to reform and expand higher education have not all been legislative: the decrease in student numbers in the seventies meant an increase in the number of mature students in higher education. The so called 'semi-professions' (those professions with no firm theoretical base or monopoly of exclusive skills who adopted a service ethic (Jarvis, 1975) such as professions allied to medicine), took the opportunity to claim professional status for themselves by recruiting large numbers of new graduates (Fulton, 1984). Expansion has also occurred through the widening of access and the continuing attempts to broaden the social mix in higher education. Initiatives such as National Vocational Qualifications (NVQ), Access courses and the Accreditation of Prior Experiential Learning (APEL) have meant that the clientele within the system has changed, albeit slowly, resulting in new challenges and complexities.

Boud (1988a) speaking from an Australian perspective, argued that the 1980s post cutback period was not a time ripe for innovation, but rather a time of adjustment worldwide, a time to recover from the cuts in higher education of 1981. In the UK, however, this seemed to be the time for many institutions when innovation *did* occur, possibly due to adversity stimulating creative thinking, and PBL began to have a presence.

Problem-based learning: an innovation whose time has come?

PBL, as it emerged in the sixties and seventies, appeared to be a method which was sensitive and responsive to the educational philosophy of its time. Theoretical influences were many. For example Popper (1959) suggested that learning takes place through the formulation of problems and through trial and error in solving these problems. Rogers (1969) promoted a person-centred approach to learning. Bruner (1961), the originator of the term 'discovery learning' viewed learning as 'instrumental conceptualism': a person's knowledge of the world is based on her constructed models of reality and such models are first adopted from one's culture, then adapted to one's individual use. Thus learning must necessarily take account of the learner.

Knowles in the 1970s was arguing that the needs of adults, as learners, were different from those of children. He suggested that teacher centred subject-based learning assumes that the learner's experience is of less value than the teacher's, whereas student-centred learning focusses on the process of learning to learn (Knowles, 1975). Incremental data about what students do and do not know were increasingly being seen as important. The innovative work of Perry in the 1970s, was one of the first explorations of student learning through the world of the learner (Perry, 1970). His qualitative study provided a detailed account of nine stages through which students pass. Perry suggested a student progressed from a position of perceiving the world in terms of 'good-bad, right-wrong' (position 1) to a view of seeing 'everything is relative but not equally valid' (position 5), and reaching a stage of needing to make a commitment in some area and explore his/her values through this commitment (position 9). Perry's scheme implies that students' conceptions of learning tasks are influenced by their position on the scale, and also that their learning is influenced by their view of the nature of knowledge. This work has prompted a host of further studies, including those on women's conceptions of knowledge (for example Belenky *et al*, 1986).

The incremental body of knowledge about how students learn has created a move within the higher education system itself to create educational environments which are more conducive to learning. For example Perry's work has been used by many (Entwistle and Ramsden, 1983; Hounsell, 1987; Gardiner, 1989) to support, explore and foster learning methods which are more active, and which help students to interact with both the material to be learned and their world. Curriculum design has also been an area of growing interest. The pioneering work of Stenhouse (1975) challenged the use of behavioural methods in the design of curricula. Stenhouse's fundamental objections to the universal application of objectives are that it both mistakes the nature of knowledge and the nature of improving practice. He distinguishes between four different educational processes: training, instruction, initiation and induction, and argues that although the objectives model offers a reasonably good fit between training and instruction, this is not so with initiation and induction. Stenhouse's main focus is that of induction into knowledge since the most important characteristic of this mode is that one can 'think with it': knowledge he argues is a structure to sustain creative thought and provide frameworks for judgment, and is largely concerned with synthesis.

Meanwhile new debates about professional education have also been influential in putting PBL high on the agenda within higher education. Professional education is an area which has grown and developed through a number of changes since the sixties.

Barnett (1992a) suggests that the growth of professional education is possibly the most significant feature of development of higher education in the UK over the last thirty years.

Experimentation around the use of PBL was therefore shaped by new questions being raised about professional education in the context of unprecedented world expansion in higher education in the 1960s. In the 1970s, as interest grew in how and what students learned rather than how much, the then polytechnics had been created to form a more socially responsive sector of higher education with issues of public accountability to the fore. During the 1980s learning became increasingly a public matter, and concern mounted that professional groups allowed their own interests to predominate in the management of their affairs (Haskell, 1984).

Changes appeared to have emerged as a result of the Government's growing demand for greater accountability within education and employers' preferences for graduate entrants with problem solving skills. It was also as a result of influences elsewhere in the world. The innovative work of Schein (1972) and Argyris and Schön (1974) provides an example. Schein (1972) proposed four directions of change for professional education:

- more flexible professional schools which promote a variety of paths leading to a variety of careers
- more flexible early career paths
- more transdisciplinary curricula that integrate several disciplines into new professions that would be more responsive to the new social problems
- complete integration of the behavioural and social sciences into professional curricula at the basic science and applied skill level.

The work of Argyris and Schön (1974) at Harvard and Massachusetts Institute of Technology also helped to raise a number of important issues relating to the way in which professionals think and act, and suggested that professional learning and practice required 'a kind of knowing' which reached beyond that of positivist science. They argued that situations with which professionals dealt were generally unstructured. This influential work also highlighted the contradictions between espoused theories and theories-in-use. Such work helped to prompt change in professional education through an exploration of the nature of knowledge and the relationship between theory and practice in professional courses.

For example Eraut (1985) discussed the nature of knowledge in terms of the way in which it was both created and used within professional education. He argued that higher education needed to develop a role beyond that of creating and transmitting knowledge by enhancing the knowledge creation capacity of individual and professional communities. This would therefore require a greater exchange between higher education and professions. Ellis (1992) explored the nature of different types of professional curricula. He argued that the integration of theory and practice within professional curricula was vital, and this integration should be seen in terms of the worth of, and consequent assessment of, practice within the curriculum. Such research and literature have prompted the incorporation of ways of helping students to understand how practitioners think and reflect in action into both curricula and professional practice. One such way was seen to be the inclusion of PBL within professional curricula.

The remit of this study

As I commenced this study I was aware, through the literature I had already explored in my previous study (Savin, 1989), of an array of problems that had already become apparent to those using PBL worldwide. I realised that I could not tackle all of these, and probably not even those with which I was already familiar (above). One of my concerns was to explore the UK context as there were at that time few studies which had been undertaken.

Thus the purpose of my study was to *examine the expectations and experiences of staff and students in different professions and education environments who were involved in using PBL in some way*. In other words I sought to examine the ways in which staff, students and course designers made sense of PBL; its purposes, processes and desired outcomes. Implicit within this would be an exploration of the issues and complexities associated with the introduction and developments of PBL in various environments within higher education, as well as contradictions that may arise between intentions and practice.

A central concern of my research was to illuminate people and their lives as three dimensional, not as subjects without a history or a future. Thus the methodology adopted was post-positivist (Lincoln and Guba, 1985) and was both emergent and collaborative in its design and process.

The distinctive contributions of this study are its:

- innovative methodology
- multi-site approach
- consideration of both staff and students' perspectives
- exploration of PBL across four differing subject areas, distinct professional groups and different higher education institutions (including pre and post 1992 universities)
- analysis of areas of congruence and contradiction between the espoused intentions of using PBL, and the actual practice and experience
- location at a time of radical change within the higher education sector in the UK

This is elaborated in Chapter 3.

Summary

PBL seemed, at first glance, to be an innovation whose time had come. It emerged at a time of unprecedented world expansion in higher education, and evolved amidst new debates about professional education when student learning was a growing concern. For some, the potentiality of PBL appeared overwhelming but for others it presented a challenge too great and brought with it a host of problems. My own experience was that PBL was an exciting and innovative, though problematic, way of learning for both staff and students. Thus I sought to undertake a study which began to unpack some of the intricacies of PBL in Britain. Initially I began a search through the literature to uncover studies which might inform me further. The body of literature available when I began this study (1990) was disappointing. It lacked rigour, was predominantly descriptive and offered little consideration of the philosophical underpinnings of PBL. However, it is this which I explore in Chapter 2.

Chapter 2. Literature Review

A web of belief?¹

¹ Quine (1963)

Introduction

Quine's (1963) notion of a web of belief encapsulates his perspective of the conception of knowledge. He argues that the totality of our so-called knowledge or beliefs is a man-made fabric which impinges upon our experience only along the edges. Thus conflict with experience at the periphery requires readjustment in the interior. The concept of a web of belief is used here to capture the idea that there are a number of competing conceptions about the nature of PBL. PBL currently refers to a wide variety of practices underpinned by different ideologies and purposes. This has led to different meanings and interpretations of PBL. The literature reflects this diversity which brings with it both confusions and concerns about how PBL might be understood.

This chapter is divided into four sections, the first of which offers an overview of PBL as a specific concept and approach. The next section reviews the competing understandings of PBL and the third explores the way in which PBL has been applied in various disciplines and educational environments. The final section presents the research which has been undertaken in this field and reviews the ways in which this study addresses some of the gaps in the existing research.

Section 1: The emergence of Problem-based learning as a specific concept and approach

PBL emerged from the work of Barrows (1963) who discovered through his research into medical education that :

“... medical students and residents for the most part did not seem to think at all. Some gathered data ritualistically and then tried to add it up afterwards, while others came up with a diagnosis based on some symptom or sign, never considering possible alternatives.”

(Barrows and Tamblyn, 1980: xi).

Despite, or possibly as a result of, the complexity of issues being identified around problem-solving skills in medical education in the sixties and early seventies, and the research undertaken by Barrows, PBL was developed at McMaster University in Canada. Barrows set out to design a medical school curriculum based solely on small group, student-centred learning. The rationale for PBL was based on years of observing experts engaged in clinical reasoning. Barrows and Tamblyn (1980) identified five characteristics of the clinical reasoning process:

- information perception and interpretation
- hypothesis generation
- inquiry strategy and clinical skills
- problem formulation
- diagnostic and/or therapeutic decisions

Barrows and Tamblyn (1980) claim that PBL is based on two assumptions. The first is that learning through problem-solving is much more effective than memory based learning for creating a usable body of knowledge. The second is that the medical skills which are most important for treating patients are problem-solving skills, not memory skills. This model of PBL was based on what Barrows and Tamblyn (1980) termed 'discovery learning' - although they failed to explain what was meant by this locution.

As Barrows and Tamblyn's model was being developed in the early 1970s there also was increasing interest in the medical world in students' ability to develop problem-solving skills. McGuire (1972) found medical students were lacking in problem-solving skills. In her later work McGuire (1985) suggests that the literature regarding problem-solving skills identifies three categories:

- those related to the nature of the process of medical problem-solving
- those related to the generalizability of medical problem-solving skills and abilities
- those derived from a prescriptive, decision-analysis approach

In parallel there was increasing interest in understanding students' approaches to problem-solving activities (for example Laurillard, 1979), and with it came criticism of the unnaturalness of much laboratory research in cognitive psychology (Neisser, 1982). This resulted in exploration into wide ranging studies of students' problem-solving abilities with a growing emphasis on the use of qualitative methods (Laurillard, 1984). Due to the increasing body of research in this field and the substantial body of literature relating to problem-solving it was decided not to explore the complexities of forms and notions of problem-solving used by students in this study.

This early research into problem-solving and clinical decision-making prompted interest and research within professions allied to medicine in the 1980s (Higgs 1990; Terry and Higgs, 1993). There was however a shift away from focussing on the generation and testing of hypotheses as being a means of arriving at a major clinical decision, towards a greater emphasis on clinical reasoning as a process occurring throughout clinical practice. Thus clinical reasoning began to be seen more as a cyclical process which incorporated reflection and acknowledged the clinicians' knowledge base, ability to collect data and interpersonal skills.

PBL emerged at McMaster in Canada and was adopted soon after in other medical faculties in Israel, Australia, the Netherlands and then later in the United States (Abrahamson, 1987). PBL has also developed in other spheres of professional education, but there are fewer studies in these areas. These fields include: nursing, physiotherapy, public administration, social work, environmental health, management education, engineering, architecture and law (Boud, 1985).

Section 2: The emergence of competing understandings of Problem-based learning

Since the emergence of PBL many have sought to define it in some way. It would seem at first glance that it is only by unpacking characteristics that any comparison about what makes PBL different from other ways of learning is possible. Yet merely to list characteristics does not in fact untangle the philosophical conundrums of PBL. This section offers an overview of some of the differing ways in which PBL is understood. It is argued here that the more recent debates (Margetson 1991a; 1991b; 1993a; 1993b; 1994) are what should be under consideration rather than particular characteristics of PBL.

Differing ways in which Problem-based learning is understood

Boud (1985) and Barrows (1986) are two authors who list characteristics of PBL. Both argue that PBL is not to be seen as a particular way or method of learning, rather it is to be seen as learning which has a number of differing forms. Boud (1985) suggests that PBL differs according to the nature of the field and the particular goals of the programme. He notes that recent developments in PBL have drawn on a number of ideas in addition to problem-centredness, the most important of which he sees as student-centredness. He outlines eight other characteristics of many PBL courses:

- An acknowledgement of the base of experience of learners
- An emphasis on students taking responsibility for their own learning
- A crossing of boundaries between disciplines
- An intertwining of theory and practice
- A focus on the processes of knowledge acquisition rather than the products of such processes
- A change in staff role from that of instructor to that of facilitator
- A change in focus from staff assessment of outcomes of learning to student self and peer assessment
- A focus on communications and human relations even in highly technical areas

Barrows (1986) proposes a taxonomy of PBL methods which explains differing meanings and uses of PBL. He begins by highlighting the educational objectives which it is possible to address through PBL, and then defines six variables in PBL methods:

- complete case or vignette
- partial problem simulation
- full problem simulation (free inquiry)
- teacher-directed learning
- student-directed learning
- partially student and teacher directed learning

Barrows suggests that the combination of design variables for PBL, when linked to the educational objectives, is endless. He concludes that the term PBL must be considered a genus from which there are many species and subspecies. As such all types of PBL must be evaluated in terms of issues such as the type of problems used, assessment methods, learners' autonomy and the way in which teaching and learning occurs.

Similarly Walton and Matthews (1989) and Engel (1991) argue that PBL is to be understood as a general educational strategy rather than merely a teaching method. Walton and Matthews (1989) note that there is no fixed agreement as to what does and does not constitute PBL. Yet they argue that three components of PBL have to be differentiated. Firstly *essential characteristics* which comprise curricular organisation around problems rather than disciplines, an integrated curriculum and an emphasis on cognitive skills. Secondly *conditions which facilitate PBL* such as small groups, tutorial instruction and active learning. Finally *outcomes which are facilitated by PBL* such as the development of skill and motivation, together with the development of the ability to be life long learners. Engel (1991) suggests that PBL needs to be adopted beyond subjects and disciplines, so that curricula are structured around principles and concepts and so that students not only acquire knowledge but also generalizable competencies. Although he considers some of the underlying philosophical issues, such as learning for what he terms 'capability' rather than just acquiring knowledge, and the relationship between PBL and adult learning theory, he does not offer a well developed argument about the difference between a way and a method of learning.

A number of authors have moved away from considering PBL in terms of the nature of its constituent parts to viewing PBL in relation to other educational issues. (Benor, 1984; Birch, 1986 and Norman, 1988).

Benor (1984) questions whether PBL is a method of learning which can be adapted to either a wide range of educational approaches or whether it is an educational philosophy which closely corresponds to Brunerian discovery learning. He sees the latter as being incompatible with traditional methods of learning. Benor argues that medical schools have not widely adopted PBL because it has been perceived as a philosophy rather than a method of learning.

Benor maintains that since schools of medicine require the achievement of predetermined objectives by a given date, attempts to have a PBL curriculum based on discovery learning will result in a core curriculum which is a 'hidden curriculum'. Therefore the discovery learning for the students becomes the unveiling of this core curriculum. To detach PBL from 'discovery learning' for Benor means that PBL may then be perceived as a method rather than an educational philosophy. This consequently offers a wider range of uses for PBL within medical education. Although Benor is concerned about this confusion few others consider it to be a barrier to the way in which PBL is seen or understood.

Birch (1986) relates the value inherent in PBL to the work of Dewey (1916) suggesting that it combines pragmatism and idealism:

"In the sense that problem-based learning provides a focused and structured approach to learning its source is in the spirit and method of enquiry which characterise research and which support the notion that in higher education teaching is most effectively carried on in an atmosphere of research. So regarded, PBL is central to the purpose and value of higher education."

(Birch, 1986: 73)

Birch argues for the relevance of PBL to mass higher education and then proposes a model of PBL, which seems to differ little from the model devised by Barrows and Tamblyn (1980).

Norman (1988) reviews the empirical evidence regarding problem-solving skills and PBL and suggests they are not the same, although the two are often used interchangeably. Norman argues:

"Problem-based learning as an instructional strategy is unrelated to the learning of problem-solving skills"

(Norman, 1988: 279)

Norman discusses the assumptions underlying the teaching and acquisition of problem-solving skills and suggests that there is little evidence to support problem-solving as a general skill. He suggests problem-solving skills may exist, but even if they do, they do not explain the acquisition of expertise. This poses numerous questions for those who suggest that PBL facilitates problem-solving. Yet he does see two advantages in PBL. He suggests students enjoy PBL more than traditional methods of learning and argues it is well established that knowledge is much better remembered or recalled in the context in which it was originally learned.

Debates concerning the nature of Problem-based learning since 1990

Literature has emerged over the last six years which considers both the nature of PBL, its underlying theoretical tenets and its political implications. Margetson (1991a; 1991b; 1993a; 1993b; 1994) discusses the complexity of the issues surrounding PBL in relation to institutions, political systems, different cultures and economic climates and considers the challenge of implementing PBL. For Margetson PBL is:

“... a conception of knowledge, understanding, and education profoundly different from the more usual conception underlying subject-based learning”

(Margetson, 1991b: 43-44)

Over the course of the five articles Margetson discusses a number of concerns which relate to PBL. In the first article he argues that there is a threat to PBL which may partly be due to an assumption about certainty in knowledge (Margetson, 1991a). He suggests the assumption that ‘knowledge is certain’ persists and that the assumed link between certainty and knowledge is used to justify didactic teaching. Consequently problems may be limited in two ways. Firstly knowledge may be generated through the solving of problems, but if they are real problems, (those to which solutions are *not known*), then this type of activity should be a matter for research rather than teaching and learning. Secondly problems used in teaching and learning are of a special sort. The purpose of these problems is to test students’ understanding of what has been taught, which means essentially that they are not real problems since the solutions are already known.

Margetson believes that this is rather an atomistic conception of knowledge which results in teaching becoming an act of putting students right. Having compared this conception of knowledge with that of Popper (1970) and Quine (1963) he argues that the conception of knowledge associated with the assumption of atomistic certainty results in a predisposition towards a technicist view of reality which stands in opposition to problem-based education. Thus higher education becomes, through ‘technicism’, about teaching students to achieve given ends.

Margetson concludes by noting that this mistaken assumption of certainty in, or conception of, knowledge is little noticed or examined. Yet this assumption has a distorting influence which may result in a “technicist-inspired problem-based pedagogy” rather than problem-based education.

His thought provoking argument is a challenge to many implementing PBL, particularly in the areas of science and medicine where there may be a greater emphasis on acquiring certain knowledge than in arts subjects. However Margetson, in this article, offers little suggestion of how to counter this view of certainty or how to avoid the pitfalls of promoting technicist-inspired PBL.

In his subsequent article (Margetson, 1991b) suggests that one of the underlying reasons for the resistance to PBL is due to the belief about the nature of expertise, which arises partly from a conception of the nature of discovery. Margetson suggests that education has inherited a mistaken understanding of discovery, which has resulted in an impoverished notion of expertise and in turn is associated with a questionable conception of knowledge.

The key issue which Margetson raises is the relationship between the nature of discovery and PBL. He unpacks some of the philosophical controversies which surround PBL. Margetson asserts that education has inherited the ‘separation view’: the separation of the context of discovery and the context of justification. He argues with this separation view of scientific discovery, that there can be no taught process of educational discovery, since discovery is seen as a process in which no normative guidance can be given. Thus PBL stands in contrast to this and suggests discovery is possible without it being an uncontrollable process, so for him, PBL does not deny ‘content’, or ‘expertise’. It is a way of gaining a vitally important form of expertise and also the means of placing content in “an active perspective which renders it important”.

Margetson’s third article (Margetson, 1993a) considers the relationship between teaching and facilitation. He feels that extreme interpretations of facilitation, which he terms “Content Free” (CF-facilitation) cast the facilitator in the role of midwife. They assist in the birth of feelings and thoughts students may have, and are prohibited from influencing the content of what is produced. This he sees as reducing facilitation to a technical function which focusses purely on process and ignores content, which for him mirrors the distortion embodied in technicism. Thus the facilitator is reduced to a “technical functionary”.

Having explored the nature of pedagogy, which Margetson also sees as technicist, he suggests that 'educative teaching' avoids the extremes of content-only and process-only practice:

"Educative teaching *practices (sic)* a process-content whole which cannot be exclusively separated out into a component of process and a component of content. It is *facilitative* in encouraging the learner's active, co-operative participation in extending, enriching, and transforming what is most valuable in existing meaningfulness - that is, it facilitates the learners's extension of his or her own understanding and knowledge *in relation to* the knowledge and understanding of others both current and past."

(Margetson, 1993a: 168)

He concludes that problem-focussed learning (a term he prefers to problem-based learning, as he sees the latter as implying foundationalism in its notion of learning being based upon problems), is a method which commences by acknowledging and utilising students' existing knowledge and understanding. He believes that problem-focussed learning facilitates a wider knowledge and understanding in a way which is meaningful to students.

Thus facilitation which occurs in problem-focussed learning is a form of teaching which is highly educative. Despite this sound argument, Margetson does not explore the complexities of differing facilitator roles and styles within groups at differing stages of group development. Differing facilitator roles and styles may affect the extent to which facilitation in problem-focussed learning is educative.

Margetson later explores a number of philosophical issues relating to PBL and also some of the political complexities (Margetson, 1993b). He begins with an exploration of a point he raised in the conclusion of his previous manuscript, which suggested that the term 'problem-based' learning reflects a foundationalist conception of learning. Margetson sees this as problematic. He argues for a non-foundationalist term: problem-focussed learning. He also moves away from the idea of problem-focussed learning as just being a different approach to learning which is more relevant and improves students' motivation. Instead he explores the philosophical differences between problem-focussed learning and subject-based learning through a discussion of the nature of epistemology, the nature of questions and problems and also a consideration of the way in which the learner is perceived. Margetson concludes that adherence to foundationalist conceptions of knowledge and understanding results in the fragmentation of education, and he argues for a problem-focussed conception of learning where disciplines coalesce around problems.

Schmidt (1993) offers a different perspective, arguing that PBL stands firmly in the rationalist tradition and is strongly influenced by cognitive psychology. He suggests that the roots of PBL may be traced to Dewey's (1929) pleas for the fostering of independent learning and also to Bruner's (1959) notion of intrinsic motivation as a force which drives people to discover their world.

Schmidt presents six fundamental principles of learning from "the science of the mind". From these he argues that PBL promotes two of these premises in particular: firstly the activation of prior knowledge, and its elaboration through small group discussion, and secondly something he terms 'epistemic curiosity', a form of intrinsic interest or motivation. Yet he notes the need to study "what exactly goes on in a group tackling a problem" and posits a number of philosophical and pedagogical questions relating to these which require further exploration and research.

Although Margetson (1993b) raises some of the difficulties of the foundationalist studies in the political climate of the 1980s and 1990s it is his later article (Margetson, 1994) which reviews the significance of PBL in relation to current educational reform. Here Margetson maintains that confusion appears endemic in government approaches to educational expertise: they ignore it when it suits them but simultaneously reform it in ways they feel will exploit its value. He asserts:

"The resulting reforms seem likely to destroy rather than produce the qualities governments desire, and thus appear to be self defeating . . . we appear to be caught in a triple bind: self-defeating government educational reform policy, unconvincing grounds for resistance to reform in higher education, and a mainly hostile relation between the two parties inhibiting serious dialogue and effective cooperation."

(Margetson, 1994: 9)

Problem-focussed learning (PFL) for Margetson is a way out of this 'triple-bind' because it puts the question of educational reform in a different light. Margetson suggests that qualities of openness, self-directed learning, group work, cooperative peer learning, reflective and constructive critical evaluation and assessment, which are all integral to PFL, may open the way to constructive realistic reform of higher education from within. He argues PFL offers an opportunity for alleviating the current dualistic opposition between government and higher education.

The importance of this more recent literature is that it demonstrates the shifts that have taken place since the emergence of PBL in the 1960s. At that time there was little discussion about the underlying assumption of PBL, and the conceptions of language, knowledge, expertise and facilitation which were seen to be implicit within it as a method of learning.

Current debate about PBL centres on concerns which relate not only to the nature of PBL *per se* but also to the pressures, reforms and readjustment of ideologies which have emerged from the world-wide changes in the nature of higher education. What is more, in the UK at least, PBL is obtaining increasing support from the State because of the way in which PBL is seen to address issues on the State's agenda (Barnett, 1994: 5).

Yet the nature of PBL is an area which is still under discussion and arguments continue to rage in this field. The underlying theoretical tenets and political implications of PBL in relation to institutions, political systems, different cultures and economic climates have been explored by few. Instead a broad range of literature has emerged which documents the differing applications of PBL.

Section 3: Applications

This section documents the underlying reasons for the implementation of PBL and the way in which this has been undertaken in practice. The literature relating to the design and administration of courses using PBL is disappointing. Documentation largely focusses on descriptions of courses which offer little critical consideration of other issues involved, such as the institutional setting, students' prior learning experiences or the difficulties of implementing innovation. Research into PBL courses predominantly focuses on course evaluation or discrete aspects of PBL. The literature concerning studies undertaken in the field of PBL will be presented in section four of this chapter.

Arguments for the implementation of Problem-based learning

The majority of the literature in the late 1970s and 1980s argued for the use of PBL (including, and beyond, the original reasons suggested by Barrows and Tamblyn 1980) for three key reasons.

The first reason was that of developing 'skills', and in particular reasoning skills. Little and Ryan (1988); Loewenthal (1986); Prosser (1985), and Van Langenberghe (1988) all include within their problem-based programmes the development of skills particular to the profession, or in the case of Titchen (1987a) the continuing development of 'professional skills' in post registration education. Furthermore Olson (1987) and Shahabudin (1987) suggest that clinical reasoning skills are obtained through PBL, and that through PBL the development of these skills is made more explicit to the students.

The second reason was that learning should take place within a context which is relevant to the students and is attuned to the world of work. Little and Ryan (1988) suggest PBL is used to provide a learning environment which "reflects the action-based nature of the profession". Shahabudin (1987) introduced PBL to help students understand medical sciences in the context of a problem scenario. Loewenthal (1986) used it to enable students to explore and define problems in the context of their own experience and that of their organisation, and then to consider how concepts from academic disciplines related to these.

The final reason was the promotion of self-directed learning, that is, learning which fosters independent inquiry. PBL is said to enable students to become self-directed learners, so that they know how and what to learn, and are thus equipped as life-long learners, and are better able to cope with the rapidly changing world. (Hurley and Dare, 1985; Maitland, 1985; Loewenthal, 1986; Titchen, 1987b; Van Langenberghe, 1988).

A number of articles cite lists of advantages of PBL over more traditional ways of learning (Loewenthal, 1985; Neame, 1982; Coles, 1985) and others suggest that PBL is found to be more enjoyable and stimulating by staff and students involved in programmes which use PBL (Olson, 1987; Neame, 1982). However, few seemed to tackle many of the underlying assumptions of PBL or relate them to current trends in the broader context of changes within professional education.

There has been a shift in recent years from literature which describes PBL, and how it is working in particular courses, towards critical analyses of PBL which are more sensitive to the complexities of this approach to learning and teaching. This demonstrates the increasing move away from what Boud and Feletti (1991) term a 'decade of evangelism' in the 1980s towards a deeper consideration of the emerging themes and issues. PBL is still seen to promote self-directed learning, and learning which takes place within a relevant context.

PBL is a model which requires students to use skills and life experience in order to utilise the knowledge they have gained. Many suggest that PBL has implicit within it the idea of reflection. This is because it appears to be a model which requires students to use skills and life experience in order to utilise the knowledge they have gained, and to reflect upon these processes. Andersen (1990) includes this as a specific component of the nursing programme as do Heycox and Bolzan (1991). Yet little is discussed in the literature about the quality of students' experiences (for example Coles, 1991; Bawden, 1991; Engel, 1991) or about how reflection occurs in reality within problem-based programmes.

The development of reasoning skills is still said to be furthered through PBL. Andersen (1990), Yang (1991) and VanLeit (1995) suggest that clinical reasoning skills are gained through PBL and that through this method of learning the development of these skills is made more explicit to the students. In terms of research there still appears to be little evidence to demonstrate that this is so.

The development of skills has become increasingly important as higher education in the 1990s is being encouraged to move towards developing students' knowledge and abilities which are both flexible and market related. (Bridges, 1993; Barnett, 1994). A number of authors (Van Berkel, 1990; Blosser and Jones, 1991; Des Marchais *et al*, 1992; De Virgilio, 1993) see the development of skills as the underlying purpose of implementing PBL. It may be that the development of these skills is also included in traditional curricula. However it would seem that PBL is increasingly used as a vehicle to develop skills for life and work in the continuing move away from liberal education.

This is occurring at a time when students are being asked not only to make choices intellectually but also pursue these choices practically by acting in and upon a competitive social world (Bridges, 1993).

Curriculum¹ design and implementation

Issues relating to design and administration of problem-based courses are perhaps best summed up by Feletti and Wallis who suggest:

“The construction of a problem-based learning programme is no different from any other in requiring careful planning and definition of the educational process . . . This form of education may, however, be more labour intensive initially, in designing the experiences and materials, and in implementing it using small group tutorial sessions.”

(Feletti and Wallis, 1985: 99)

Approaches to designing problem-based courses described in the early literature are widely different, in terms of the number of hours given to PBL, the position of PBL within the curriculum, the relationship between PBL and the rest of the curriculum and the extent to which ‘content’ can be covered in a PBL curriculum. For example Neame (1981) outlines the preparation of an integrated problem-based course at the Faculty of Medicine, University of Newcastle, New South Wales. This includes a comprehensive description of planning objectives, problems, the preparation of trigger materials and learning materials, assessment and evaluation. West and West (1987) describe the integration of a problem-based block of seven days of psychotherapy into a traditional curriculum. The description includes course design and implementation and raises the issue of the complexity of measuring the information bases with which students arrive. The article is also one of the few which tackles the issue of group interaction and suggests that the dynamics of the group may influence the acceptance of this method of learning.

Many courses seem to use a case study as the focus for learning, with some form of problem package or simulated case. Another common feature is the use of group work, but the size of the group varies across curricula from four to ten people. Some courses use PBL for most or all of the curriculum (Barrows and Tamblyn, 1976; Neufeld and Chong, 1984; Little and Ryan, 1988; Van Langenberghe, 1988), others use it as a module within a traditional curriculum (West and West, 1987; Shahabudin, 1987).

¹ Curriculum may be used in a relatively restricted sense to denote little more than the subject content of a teaching programme. However, it is used here, in a more generous way, to signify not only the subject content but also the intentions behind the transmission of that content. Furthermore the word ‘traditional’ is not meant to be derogatory in any way, rather it is used to indicate curricula which predominantly use didactic methods of teaching.

A more critical approach to PBL course design also appears to be emerging. This has arisen through the increasing evaluation of PBL courses, the incremental body of research into PBL and a greater awareness of the complexity involved in designing materials required for PBL (Hafler, 1991). For example MacDonald (1991) discusses the issues of "what is important enough to be included in a medical curriculum?" He suggests that the problems used should not be based on content, but on priorities which have been clearly defined, and argues that the problems chosen define the basis of the curriculum and the way that they are studied define the curricular emphasis.

Ryan and Little (1991) describe the origins of the decision to implement PBL in a nursing course. Decisions were grounded in work in the field of nursing, which examined the basis of clinical judgement exercised by graduating nurses and found deficiencies in their inquiry processes. Ryan and Little offer a critical review of how they implemented PBL, including a description of how students felt about the innovation and the way in which staff roles had changed. Woods (1991) describes a transitional process in which PBL was introduced into an otherwise conventional engineering programme. Unlike much of the earlier literature it offers a critical analysis of the difficulties. One of the issues which emerged unexpectedly was students' attendance at, and attitudes to, PBL seminars. Students reported that they learned more, studied harder and enjoyed learning more than on traditional programmes, however there was also intermittent attendance by students in some PBL groups. He suggests one of the main complications of PBL is that of getting students to take responsibility for their own learning.

There are to date few areas where PBL has been adopted over a whole curriculum. As a result it is almost impossible to make any comparison across professions or subject areas. There are only two issues which could be said to be similar across curricula regarding the current use of PBL. Firstly the tutor is seen as a facilitator of learning rather than someone who transmits a body of knowledge. Secondly the use of problems is seen as the initial focus of the learning. There continue to be differences in the way PBL is interpreted, in the size of groups used, in how it is used within a course, and as to whether a facilitator is present all the time, some of the time or not at all. There are also differences in the type of assessment used.

The literature does document a broader range of courses than in former years, and now includes subjects such as informatics (Morrison, 1991), mathematical sciences (Usher *et al*, 1991), optometry (Lovie-Kitchin, 1991), and computer science (Luzzi *et al*, 1991; Valentini, 1991). However there remains little literature which describes courses which have considered, but have opted not to use, PBL and little which analyses courses which have tried PBL but have ceased to use it.

Thompson and Williams (1985) provide a discussion on the barriers to the acceptance of PBL in medical schools. They suggest it had been introduced slowly or not at all in the field of medicine because of institutional complacency, departmental paranoia and the conflicting roles of the medical school. Other reasons cited were conflicting demands on faculty time between tutors' own research and teaching, reluctance to change teaching style, students' reluctance to adopt a change in learning style, resistance to change in assessing students and expense. Despite the lack of research into why PBL is not used, there has been increasing research into the effectiveness of PBL as a means of learning.

Section 4: Research into Problem-based learning

Research into PBL since its emergence in the sixties has been relatively limited and much of the literature has been anecdotal in nature. Studies which have been carried out have been predominantly in the field of evaluation due probably to the increasing demand by institutions and State to evaluate courses in higher education. Research has largely stemmed from the desire of those who have implemented PBL into courses to ascertain the effectiveness of this implementation. Other research documented includes comparative studies, either between traditional and PBL programmes, or between staffs' and students' differing perspectives of particular issues within PBL curricula. Research has also been carried out into concerns which have emerged through implementation of PBL programmes, namely assessment, staff and student experiences of PBL.

Evaluation studies

Early evaluation studies considered issues such as differences between conventional and problem-based curricula based on work by Entwistle (1981). For example Coles (1985) and Newble and Clarke (1986) considered the way in which PBL enabled students to become deep rather than surface learners. Other early studies were undertaken at McMaster University where PBL was first developed. For example Barrows and Tamblyn (1976) measured students' problem formulation and study skills. The conclusions in this study tended to support *some* of the educational advantages of PBL reported in their earlier literature, for instance that PBL stresses the development of essential skills in effective problem analysis and self-directed study. Woodward and Ferrier (1982) found that McMaster graduates felt more competent in areas such as independent study, gathering data and problem-solving, but found that they felt badly prepared in the basic medical sciences.

More recently there has been an increase in both the number of evaluation studies and in the evaluation of PBL which is taking place within courses.

Vernon and Blake (1993) carried out a review of all the available evaluative research from 1970 to 1992 which compared PBL programmes with more traditional ones. They found that students' attitudes and opinions about PBL were more positive than those on traditional programmes. Although PBL and traditional students did not differ in achievement in tests of factual and clinical knowledge, students on traditional programmes performed significantly better in the national examinations. The authors argue that the results support the general superiority of PBL programmes over more traditional ones. The disadvantage, however, with a quantitative study such as this is that the methods used to evaluate PBL did not fit well with the realities of learning in the field which focus upon process-centred as well as outcomes-based matters.

Vernon and Blake showed that the variations in the way in which PBL was evaluated made it difficult to find a standardised way of evaluating the course with the result that the findings of the study were patchy. The authors themselves remark:

“Conducting a high-quality evaluative research on problem-based learning has been difficult for a variety of reasons. The more independent variable, problem-based learning, is more than a simple teaching method. It is better described as a complex mixture of a general teaching philosophy, learning objectives and goals, and faculty attitudes and values, all of which are difficult to regulate and are often not very well defined in research reports. The outcome variables that are often most highly valued, and best exemplify the special features of problem-based learning are often complex, multidimensional and difficult to measure.”

(Vernon and Blake, 1993: 660)

Three evaluation studies exemplify the way in which such research into PBL has become more extensive and thorough in the last five years. Andersen and McMillan (1991) offer a comprehensive overview of the evaluation of the course at Macarthur University, which incorporates a consideration of the context, input, process and product of the course - but do not include the results and consequences of this evaluation. They also carried out a longitudinal study of graduates of the course, which is discussed in the course of this article. This showed that they were autonomous in their practice, responsible and accountable, self-reflective and assertive, showed evidence of ongoing learning, were less self conscious than hospital-based peers, and used a problem-solving strategy to identify people's needs. However, the authors do not offer a critique of the weaknesses of the programme in relation to graduates' experiences, or suggest what changes might or might not be made to the programme as a result of this evaluation.

Hengstberger-Sims and McMillan (1991) used the model of stakeholder evaluation and data collection by document review, questionnaire/inventory construction or modification and dialogue with the stakeholders. The evaluation revealed a comprehensive view of the advantages and disadvantages within the programme and proposed a set of pragmatic recommendations. The value of this study was its use of multiple methods to address the concerns of all of those in the programme. This study is probably the most extensive evaluation of a PBL programme published to date.

Finally Brandon *et al* (1992) used a similar stakeholder method. Their findings indicated that students had different priorities from other stakeholders, and therefore it was vital to include students in evaluation studies.

Although these three studies address a number of the difficulties involved in evaluating PBL programmes, evaluating such courses remains a complex task. Course evaluation involves a consideration of more than outcomes - it is also about who and what is to be evaluated. Boud and Feletti (1991) suggest that evaluation studies are usually carried out to improve the programme and justify current practices, but rarely do they compare programmes with others pursuing similar objectives. Boud and Feletti see the latter as a principal issue in evaluation. They also note that qualitative or quantitative studies in this field leave:

“ . . . proponents and consultants of PBL in the awkward position of advocating a philosophy devoid of the comparative research which skeptics most desire”

(Boud and Feletti, 1991: 245)

Comparative studies

Most of the comparative studies are those which compare traditional and problem-based curricula. However there are also a number of studies which compare other issues which will be discussed in the latter portion of this section. Many who discuss the comparisons between PBL programmes and traditional ones are converts to PBL and as such tend to write about it with a religious zeal. The lack of inquiry into the failure of courses which used PBL somewhat biases the literature in the area of comparative studies.

Coles (1985) found that the learning processes of students at the conventional medical school were substantially inferior to those of students at the problem-based medical school. Coles used Entwistle's *Short Inventory of Approaches to Studying* (Entwistle, 1981) to measure students' approaches to studying. He discovered that on entry to the two schools students showed similar approaches to studying: low reproducing and high meaning and high versatility. At the end of the first year students in the conventional school showed a shift towards 'poorer' studying approaches': greater reproducing, lower meaning and lower versatility, but this shift was not seen in the PBL school.

Coles argues that PBL, for unexplained reasons, may have created an educational climate which enabled students to learn in a more desirable manner. Coles' findings were supported by a study carried out by Newble and Clarke (1986) at the University of Adelaide which also compared medical students on traditional and problem-based curricula. This research seemed to indicate that problem-based courses do have advantages over traditional courses.

Schmidt *et al* (1987) reviewed 15 studies which compared various educational outcomes of problem-based community oriented medical curricula with those of conventional programmes. They concluded that PBL curricula provided a student-centred learning environment and encouraged curiosity in learning whereas more traditional programmes produced students who used rote memorisation and short term learning strategies. It was also found that students from PBL curricula generally did not seek careers in primary care. This latter point is also supported by Tolnai (1991). However Tolnai notes that graduating doctors' career choice may also be influenced by the fact that different medical schools attract students with different interests and inclinations. Tolnai's study also runs counter to other comparative work (Walton and Mathews, 1989) which suggested that students from problem-based schools develop a habit of life long learning more fully than those who trained in traditional curricula.

Finally two studies compared students' experiences of PBL. Woodward and Ferrier (1982) compared perspectives of graduates two or five years after graduation and found that students who had undertaken PBL curricula would do so again. O'Hanlan *et al* (1995) established that students' initial responses to PBL at the end of year one of a course showed that there was no clear preference for PBL over traditional methods. The results from these two studies may suggest that familiarity with PBL and reflection upon the process involved in learning through PBL affect the extent to which students favour PBL over traditional methods.

Overall, comparative studies seem to indicate that PBL may facilitate student-centred learning, deep approaches to learning and encourage life long learning in ways in which more traditional curricula do not.

Assessment

Studies into assessment have emerged through increasing realisation by many who have implemented PBL that the assessment of the students' performance needs to be consistent with the teaching method. Research has also taken place to establish the effectiveness of PBL and in particular to establish that students are acquiring abilities in problem-solving and professional competence.

However it is perhaps pertinent to note at this stage that there have been a number of experience-based articles which have discussed assessment. Although these have not been directly underpinned by research they demonstrate the range of concerns regarding assessment in the field of PBL. For example there continue to be different views about the extent to which assessment in PBL courses are any different from those in other curricula.

Norman (1991) argues that the graduates of PBL schools and non PBL schools are more similar than different which possibly reflects the inadequacy of assessment measures and that the real art of assessment is in steering students' learning appropriately. His point is that issues of assessment in PBL are no different than elsewhere.

Norman suggests that for some the central role of PBL is the acquisition of problem-solving skills and therefore methods need to be devised to measure these skills more or less independently of knowledge. He questions whether this is actually possible or even relevant since he perceives little support for the notion of general problem-solving skills. Rather PBL is about knowledge learned in the context in which it will be used. If PBL courses demand more of students, and if qualities such as relating to peers, patients and other professionals, self-assessment, and managing their own learning are all not assessed "they will have as much substance as the emperor's clothes" (Norman, 1991: 258). Norman suggests the use of simulated patients to assess these skills.

Yet Boud (1988b) argues that problem-based approaches force a reappraisal of assessment, its place in learning and also who and what it is for. He suggests three features which need to be included when designing an assessment of PBL

- a specification of learning objectives;
- varied and systematic methods so that assessment is seen as a process rather than a measurement activity;
- an attitude that assessment is for student learning, so that student self assessment will result in critical reflection on his/her own work.

Boud makes explicit a number of assessment difficulties with PBL and offers pragmatic and realistic suggestions.

Andersen and McMillan (1991) also offer a consideration of assessment issues in the context of the nursing course at Macarthur University. They suggest that an essential feature of sound educational practice is that the students recognise the relationship between assessment and learning objectives. Andersen and McMillan argue that process oriented curricula still often revert to traditional assessment strategies which tend to examine what students have learned rather than whether students can apply and analyse what they have learned. In the nursing programme at Macarthur assessment is an integral part of the learning process, since methods have focussed on developing:

“assessment strategies which monitored the students’ use of knowledge in the clinical context, assessed the individual’s clinical reasoning and capacity for self-direction, facilitated student reflection on both self-directed and cooperative learning ventures and reflected the reality of professional practice”

(Andersen and McMillan, 1991: 9)

The assessment methods at Macarthur have been developed over five years and would seem to constitute one of the most integrative forms of assessment to date: students receive feedback from staff in the form of judgments about their performance according to the set criteria, and also from their own self correction and critical analysis. This feedback derives from both campus studies and clinical practice and integrates learning and assessment through encouraging students to consider:

- what they did and with what result
- whether they would do it differently next time
- if so how
- the role of other members in their sub groups; and their own self-evaluation of their overall performance using set criteria.”

(Andersen and McMillan, 1991: 8-9)

The Macarthur nursing programme uses performance categories consistent with the course objectives which are used both on campus and in the clinical setting, and use a number of assessments which include essays, personal profiles, *viva voce* examinations and modified essay examinations. Although this is a course which uses behavioural methods and performance criteria, it appears also to incorporate process focussed activities and assessments successfully, enabling the students to become both self-directed and reflective learners and practitioners.

However, in terms of specific research into assessment in PBL programmes the literature is both broad and complex. Swanson *et al* (1991), for example, argue that there are two differing types of PBL which call for different methods of assessment. The majority of studies in the field of medicine assess through examinations and tests (for example Van Berkel, 1990) whereas other courses, for example architecture (Maitland, 1991), use a process of continuous assessment which includes student presentations to a panel of experts followed by questions and discussion. What Swanson *et al* (1991) suggest is that one type of PBL is a form of discovery learning with behavioural objectives, which sequence the learning and can then be used to guide the testing of a student. The other form of PBL is open discovery which focusses on process variables such as self-directedness and problem-solving. In the latter they suggest that the assessment of outcomes is problematic because in effect each student is encouraged to pursue a somewhat different curriculum.

They then suggest different assessment methods for different types of PBL, such as tutor, peer and self ratings for the process orientated approach and essay, exam and short answer test for the outcome orientated approach.

Unlike other studies, Swanson *et al* (1991) argue for assessment methods which fit the *type* of PBL being used, rather than just adapting current assessment methods or adopting assessment methods from other courses which use PBL. Studies such as this challenge course designers and teachers to examine and reflect upon the underlying assumptions of implementing PBL and force an analysis of the purposes of assessment methods.

Other research in the assessment field emerged from tutors' concerns about the effectiveness of methods in use. For example Woods *et al* (1988) carried out an evaluation of a student self-assessment scheme within the Chemical Engineering Problem-solving Programme at McMaster University. The scheme begins with a six hour workshop to develop self-awareness and skill in self-assessment. Students use journals as the main method of providing evidence and rationalise their self-assessment in an interview with a tutor. The authors conclude that self-assessment needed to be developed within the programme and more research into it was required. Although this innovative form of self-assessment is one which would appear to be a closer fit with PBL than other assessment methods, it still is not particularly learner centred because it does not begin with a consideration of the students' own objectives. Instead staff define the objectives and assessment criteria for students to use.

Another innovative idea has been the triple jump exercise (Painvin *et al*, 1979; Powles *et al*, 1981). Here individual students are presented with a problem and expected to discuss the problem and their learning needs with an oral examiner. Students then locate relevant material and later discuss their findings with the examiner and are rated on problem-solving skills, self-directed learning skills and on their knowledge of the problem area. The difficulties with this exercise are that students will probably respond differently to each problem set and it appears to be an assessment which has emerged from the medical profession's desire to test and standardise process-based learning rather than a real desire to match assessment methods with the learning method.

Many of the courses documented do not assess PBL because it is included as formative learning within curricula. This appears to be because either PBL is still in an experimental stage in the course, (for example Morrison and Murray, 1994) or because it is perceived to be learning which contributes to the development of students' abilities for life and work which may be examined through a number of assessments (for example Sadlo, 1994).

Although studies in the field of assessment are becoming more student-centred there is still a large body of courses, particularly in the field of medicine, where assessment is still predominantly a measurement activity. The area of assessment has become progressively important as higher education becomes increasingly market related. As the higher education clientele changes and brings a growing demand for consumer satisfaction there is increasing recognition that assessment must benefit the student (Boud, 1988b). PBL courses of the future, which seek to make assessment more learner-centred, will need to offer students mechanisms to develop self-assessment skills in conjunction with knowledge of the subject matter being studied. Furthermore, assessment in PBL courses will primarily need to focus on how students integrate the whole learning process (including assessment) as distinct from what has actually been learned.

Staff experiences

Although there has been a considerable amount documented about the role of the facilitator in small groups (for example Rogers, 1983; Jaques, 1984), there have been relatively few studies in the field of PBL. Those undertaken fall into two areas; staff perceptions of PBL and staff effectiveness in PBL programmes. The issues raised within the context of these two areas exemplify the increasing interest and concern about staff involved in PBL programmes.

Staff perceptions of PBL were explored in a study undertaken by Neame (1982) who explored the academic roles and satisfaction in a problem-based medical curriculum. He identified three areas which were seen to contribute to staff satisfaction. These were the acceptance of the educational philosophy of PBL, the way in which PBL was implemented and the outcomes of using PBL. Neame found that staff were committed to the philosophy, satisfied with the implementation and that a beneficial outcome was seen to be interdisciplinary collaboration. An important issue identified by Neame was that staff involved in the programme for a greater period of time were more committed to PBL than those who had been involved for a shorter time. A study undertaken by Abdulrazzaq and Qayed (1991) considered the attitudes of a new medical faculty to PBL. They found that five out of eighteen of these staff were hostile to PBL and four were 'not impressed with it'. Therefore it would seem that familiarity with PBL as a way of teaching may be an important factor in staff satisfaction and effectiveness in PBL programmes.

The area of staff development is now perceived to be key to the success of PBL. This is demonstrated by the number of staff development workshops documented in this field (Todd, 1991; Wilkerson and Hundert, 1991; Almy *et al*, 1992; Koch, 1993; Holmes and Kaufman, 1994). Yet few studies to date have explored staff effectiveness in PBL.

Gijselaers and Schmidt (1990) found that tutor functioning had a direct causal influence on small group tutorials, which in turn influenced students' interest in the subject matter. These findings reflect the complexities involved in facilitation of PBL which is still a much understudied area. More recently Dolmans *et al* (1994a) developed an instrument to assess tutor performance in PBL tutorial groups. The tutor evaluation questionnaire comprised 13 statements reflecting the tutor's behaviour. Although this instrument was found to be valid and reliable the instrument did not account for changes in group process or the need for different types of facilitation at different stages in the course. A further shortcoming of this study was the lack of definition of what constituted an effective facilitator role.

A later study carried out in the same department (Dolmans *et al*, 1994b) argues that tutor evaluation should be embedded in a broader faculty development programme. This should include the development of the formal role of the tutor, the stimulation of faculty dialogue, the design of a tutor reward system and remedial learning opportunities for staff. The authors conclude that the study demonstrated that putting effort into a faculty development programme resulted in increasing attention being paid to teaching activities within the medical school.

It is clear from these studies that the role, satisfaction, effectiveness and training of staff in PBL programmes is still an under-researched area which requires a detailed consideration of the differing types of tutors' roles at different stages in the group process, and an exploration of differing tutor roles across disciplines. Studies need to be undertaken into how tutors manage their evolving role within groups and the way in which they are prepared for involvement on PBL courses.

Student experiences

Studies in this area are still somewhat limited. An early study by Feletti *et al* (1988) found that correlations between students' approaches to learning and the degree of satisfaction with their course supported earlier claims (Coles, 1985; Newble and Clarke, 1986) regarding the merits of PBL. However studies emerging from medical curricula discuss some rather complex issues on a superficial level. For example, a study by Johansen *et al* (1992) explored the use of students as tutors within PBL but did not examine the difficulties inherent within this approach. A study by Moore (1991) found students' academic performance did not suffer when enrolled involuntarily in a PBL course.

A later study by Ryan (1993) sought to identify whether students on a course which implemented PBL, perceived it to be important to be self-directed learners, and whether these perceptions changed as they moved through the course.

Ryan suggests that PBL incorporates the development of “self-directed learning ability” and that the development of this ability is essential in PBL. His study showed that students perceived self-directed learning to be important, and the importance increased significantly throughout the semester, but felt this might be due to the highly supportive learning environment. This interesting study directly links PBL and self-directed learning. However Ryan does not really address the issue of whether, because of students’ differing perceptions of self-directed learning, they are either better or worse at PBL or find it more or less useful for themselves as learners. This may not have been considered by Ryan because of the quantitative methodology adopted. He used a self-rating questionnaire which meant that he began with his own perceptions, rather than those of the students on the course .

Dolmans and Schmidt (1994) studied the extent to which various elements of PBL curricula influenced students’ self-study patterns. They found that the availability of a reference list, course objectives, lectures, tests and the tutor all had an impact on the students’ learning activities during self-study. First year students were found to rely more on reference lists and content covered in tests and lectures, and students in later years were shown to be more self-directed. Yet this study did not address the way in which this increase in self-direction occurred nor did it explore the reasons why first year students adopted these approaches. It may be that what materialised in this course actually applies to many curricula, whether problem-based or traditional, since first year students tend to be cue-seekers (Miller and Parlett, 1974) and often become self-directed as the programme progresses.

In a recent study Taylor and Burgess (1995) document the findings of an illuminative evaluation undertaken into a PBL course in social work. They found that students on arriving on the course were at different stages of readiness for self-directed learning. Students also felt that there were four areas which should be addressed within an orientation programme which would facilitate their introduction to PBL. These were the lecturers’ expectations of self-directed learning, the role of the facilitator, learning in groups and issues of time management. In response to these findings a lecture was introduced about the philosophy and structure of PBL and a series of voluntary exercises for the PBL groups were introduced which were seen as tools for working in a PBL way. These included exercises on chairing a meeting and giving and receiving feedback. Research findings indicated that all groups chose to use at least one of the exercises. Taylor and Burgess conclude that more attention could usefully be paid in the course to the process of preparing students for self-directed learning.

This study is one of the few which explores the intricacies of implementing PBL and addresses issues which put learners at the centre of the learning process.

Summary

PBL is, and continues to be, both a challenging and controversial area. A number of interesting issues and problems are documented in the literature but it is only in recent years that learners and teachers have become more central to studies which try to make sense of PBL. An earlier study (Savin, 1989) and this exploration of the literature have enabled some sense to be made of the complexities inherent in PBL. They have also raised further issues which now become the focus of this study, namely:

- What are the espoused values and intentions of course designers and tutors using PBL?
- How do these espoused values and intentions work out in practice - are they the same as or different from student experiences?

The study aims to address some of the gaps in existing research and to enhance understanding of the complexities of PBL in the following way:

- It will provide an analysis of PBL as both a form of curricular innovation and as a method of learning at a critical time when pressure for curricular innovation is increasing.
- It will be a study at the leading edge of research into the current approaches to PBL, examining how these are evolving in four different educational and professional contexts. It will focus on a number of questions and issues not addressed in previous literature.
- It will address issues relating to student learning which are key to the current and emerging debates concerning professional education.

There is also at this stage no study which has simultaneously considered the expectations and experiences of staff and students involved in PBL programmes. A particular methodology was thus required which would enable sense to be made of the world of learners and facilitators involved in PBL . . .

Chapter 3. Methodology

The quest for certainty?¹

¹ Dewey (1949)

Introduction

This chapter presents three sections relating to the specific methodology adopted. The first section explores issues about qualitative research which influenced the study and considers some of the complexities inherent in post positivism. The second section presents the research design and documents the key methodological choices made. The final section recounts both the conduct of the study and the process of undertaking research, which began as a quest for certainty; a desire to discover the uses and key characteristics of PBL. The chapter concludes with a reflection upon this quest for certainty in relation to the findings of the study.

Section 1: Issues about qualitative research which influenced the study

This study required a particular methodology which would enable me to begin to make sense of the world of learners and facilitators who were involved in PBL. In order to do justice to the research question the conduct of the inquiry required the methodology to fit the focus of the inquiry. Thus I required a methodology which would not only illuminate the experiences of those involved in PBL programmes but which would also be collaborative in nature. Post positivism is marked by approaches to research which offer the possibility of making sense of human action and experience, which recognise that research cannot be value-free (Reason and Rowan, 1981; Lather 1986a) and where understanding people is seen as necessarily collaborative.

Post positivism arose as a counter movement to positivism. The arguments for post positivism ensued from the scattered members of the Vienna circle (Lincoln and Guba, 1985) from whose differing views emerged questions about the appropriateness of the positivist perspective to studies in the social sciences. In parallel the Chicago school of the 1930s was developing an interactionist approach to research which emphasised the social and interactional nature of reality (Bogden and Biklen, 1992). The development of fieldwork methods and the evolution of the interview as a central research strategy in Chicago in the 1950s furthered methodological development in the qualitative paradigm. It was argued by the post positivists that the emphasis of research should be upon interpretive understanding, for example the *verstehen* of Weber (1949), rather than the Comtean-type positivism of observable, objectively defined phenomena (Phillips, 1989a). Dewey was perhaps one of the first to raise the issue about how our various knowledge claims are warranted, arguing that for truth claims to be taken seriously they must be supported by appropriate arguments or evidence. He maintained that there was no difference in principle in the warranting of scientific and other types of claims (Dewey, 1966). Popper (1957) argued that scientific knowledge claims can never be proven or fully justified, they can only be refuted.

Thus it would seem that the emergence of post positivism was closely bound up with both the erosion of logical positivism (Phillips, 1989a), and the emergence of research methods which sought to do justice to people's lives.

Post positivism encompasses a number of differing methodologies which share distinctive characteristics. These include:

- Research takes place in the natural setting
- The researcher is the primary data gathering instrument
- Research is descriptive, data include interview transcripts, field notes, documents, personal reflections
- The researcher is concerned with process rather than just outcomes
- Data are analysed inductively
- Meaning is negotiated between researcher and participant
- Purposive rather than random or representative sampling is used
- Trustworthiness is established through collaboration
- Findings are time and context bound

(Adapted from Bogden and Biklen, 1992: 29-33)

I felt a framework was required which would illuminate the experiences of those participating in the study; a framework in which the methodology could be exploratory and encompassing, whilst also being rigorous and reflexive. The research design I sought needed to allow for the idiosyncrasy of human action and experience. Through it I wanted to be able to build upon collaborative relationships with the participants of the inquiry, invite reflexivity and critique, and encourage negotiation of meaning beyond the descriptive level. Initially I believed the naturalistic paradigm would allow me to participate in the world of the individual so as to understand and make sense of PBL as it was experienced and understood by those involved in PBL programmes. Naturalism is located in the natural world of people and their lives. Thus data are grounded in the everyday social interaction of the participants:

“methodologically there is something special about naturalistic research since the topic of inquiry (i.e. forms of life) is also its resource (i.e. methods and community). To talk of a theory of methods and instrumentation or to talk of independent ways of apprehending the world is to talk of a theory of persons and forms of life.”

(Kushner and Norris, 1980-81: 2)

For some, naturalism is directly underpinned by the case against positivism, so that post positivism is necessarily defined in terms of what is seen to constitute positivism. For example Lincoln and Guba (1985) argue their case for naturalism by unpacking the shortcomings of what they see as positivism. Lincoln and Guba (1985) offer five axioms which state the case of the naturalistic paradigm and fourteen characteristics of operational naturalistic inquiry which are seen to work synergistically. Together these offer the naturalistic researcher guidance in the underlying principles and values to be adopted when carrying out research in the naturalistic paradigm. It was guidelines such as these which I first used to design and implement the study. As the study progressed I used methods which were predominantly associated with New Paradigm Research (Reason and Rowan, 1981) and postmodern methods (Denzin and Lincoln, 1994).

Core values underpinning the research

A central concern of this study was to illuminate people and their lives as three dimensional and not as subjects without a history or a future. Thus as a researcher there were values which I felt were key to this type of research methodology and which influenced the way in which the inquiry was conducted:

The researcher-researched relationship

I felt it was vital to disclose my value-base to those with whom I negotiated to become part of the study, since I wanted the inquiry to be a collaborative process. I sought to work *with* people rather than to experiment upon them. A collaborative process meant negotiating description and interpretation of data with participants, and reflecting upon the experience of the research process for those involved. It also meant that interviews and encounters were interactive rather than limited to my asking questions and that I respected the rights and opinions of those involved in the study.

The nature of meaning

Negotiation of meaning was to go beyond the mere recycling of transcription and description. Thus meaning would be negotiated beyond just checking that my interpretation coincided with participants' intentions and actions. Meaning was to be negotiated through discussion of concepts, language, understandings and experience.

This would occur as the research was in progress and conclusions would also be discussed with a subsample of participants. Kushner and Norris (1980-81) argue that the attractiveness of maximising reciprocity in research design is that all participants are allowed both a role in negotiating meaning in the research, and the opportunity of contributing to the “theorising about their worlds”.

The nature of truth

Heron (1981) argues that the truth of a proposition depends upon shared values. Thus for me peoples’ norms and values, including my own, were part of the truth value of data. This required that I not only acknowledge the unconscious forces which affected me as a researcher and those with whom I was working, but that I should also learn to be reflexive and self-critical. Trustworthiness in post positivist research is an area which has been discussed frequently by many who offer schemes to ensure validity within this paradigm (Lincoln and Guba 1985, Norris 1992, Reason and Rowan 1981, Lather 1986a). I sought validity through personal reflexivity, a commitment to collaboration between researcher and participants, triangulation and member-checking.

The nature of consent

For me the primary reason for informed consent was the right of autonomy since an uninformed participant is denied the right to make autonomous decisions. Yet the ethics issues surrounding informed consent was a complex area since participants in any research project rarely really know what it is that they are agreeing to. Trust was something which I saw as being fragile and which was never established once and for all. Therefore I believed that it was only through a reciprocal approach to the whole research process that informed consent could be attained. It was consent which had to be continually discussed and negotiated from the first interview to the final public release of the findings.

It was with these principles in mind that I began the initial design of the inquiry.

Section 2: The research design

I began the research by adopting the naturalistic paradigm (Lincoln and Guba, 1985) and with it the five axioms of that paradigm:

- 1) There are multiple constructive realities that can be studied only holistically; inquiry into these multiple realities will inevitably diverge so that prediction and control are unlikely outcomes of research although some level of understanding (*verstehen*) can be achieved.
- 2) The inquirer and the 'object' of inquiry interact to influence one another; known and unknown are inseparable.
- 3) The aim of inquiry is to develop an idiographic body of knowledge in the form of 'working hypotheses' that describe the individual case.
- 4) All entities are in a state of mutual simultaneous shaping so that it is impossible to distinguish causes from effects.
- 5) Inquiry is value-bound in at least five ways, captured in the corollaries that follow:

Corollary 1 Inquiries are influenced by *inquirer* values as expressed in the choice of problem, evaluand or policy option and in the framing, bounding, and focussing of that problem, evaluand or policy option.

Corollary 2 Inquiry is influenced by the choice of the *paradigm* that guides the investigation into the problem.

Corollary 3 Inquiry is influenced by the choice of the *substantive theory* utilised to guide the collection and analysis of data and in the interpretation of findings.

Corollary 4 Inquiry is influenced by the values that are inherent in the *context*.

Corollary 5 With respect to corollaries 1 through 4 above, inquiry is either *value-resonant* (reinforcing or congruent) or *value-dissonant* (conflicting). Problem, evaluand, or policy option, paradigm theory *and* context must exhibit congruence (value resonance) if the inquiry is to produce meaningful results.

(Lincoln and Guba, 1985: 37-38)

Within this paradigm there were certain decisions that it was possible to make at the beginning of the inquiry. These decisions will be discussed in this section. However as the research design was to unfold rather than be predetermined it was not possible to design the whole inquiry in advance. Lincoln and Guba (1985) argue

"it is inconceivable that enough could be known ahead of time about the many multiple realities to devise the design adequately; because what emerges as a function of the interaction between inquirer and phenomenon is largely unpredictable in advance . . . "

(Lincoln and Guba, 1985: 41)

This section will present the initial decisions regarding the design and conduct of the inquiry. Decisions which were made as the design evolved will be presented within the subsequent section which discusses and analyses the conduct of the inquiry. To separate decisions about research design from the context in which it took place would result in a falsification of the notion of the emergent design implicit within the study.

Choice of sites

I chose to collect data from a field different from my own, from four curricula within higher education in Britain, where people believed themselves to be using a PBL approach. The reasons for making this choice about the initial data collection were:

- By beginning with unfamiliar territory, I would be less likely to become waylaid by a familiar course and setting which might encourage me to make more than the usual amount of mistaken/unhelpful assumptions.
- I believed an unfamiliar setting would force me to push the boundaries of my thinking and free me to 'begin with silence' (Psathas, 1973).
- I thought unfamiliarity would heighten my awareness about the ways in which the espoused values and intentions of using PBL differed from the reality of what was actually occurring in practice.

The research design was to be emergent (Lincoln and Guba, 1985) which would mean that continual data analysis was both possible and desirable. One cycle of data would necessarily feed into the next, thus enabling me to use a series of feedback loops to deepen my understanding of the issues. Continuous data analysis was to be a key feature, building on issues generated from data collection in previous settings, and then exploring themes which appeared to be developing.

A multi-site study - some methodological challenges

Lather (1986a; 1986b) argues for a democratised and collaborative process of inquiry and when I began this research certain issues seemed imperative. I wanted to portray what people claimed for and sought in PBL within the learning culture they were experiencing. Furthermore I wanted to explore how PBL was experienced in different contexts - hence a multi-site study was appropriate.

Carrying out a multi-site study raised a number of methodological issues for me about

- How much time to spend in each site
- The risk of my making assumptions about what people were saying and ignoring the 'local knowledge' (Geertz, 1983)
- Missing issues in later sites because of over familiarity with the issues people were raising (because I had 'heard them all before')
- The risk of superficiality as I moved from one site to another, and the possibility of not getting an in depth understanding of any one place

Negotiating consent

Issues regarding consent took on different forms at different stages in the inquiry.

However at the outset I began by making the following decisions:

- To protect identities
anonymity was to extend to writing and verbal reporting
I would be careful about sharing information about others while in the field
- To treat people with respect and aim for collaborative research
people would be told of my research interests
I would not record/observe without consent
- To make my terms of agreement clear
I would use a consent form
I would negotiate the validity of my findings with those involved

Sampling

The purpose of sampling was to maximise information. Patton (1987) suggests six types of sampling, and I chose to use maximum variation sampling. This involved selecting a small sample of participants with broadly differing perspectives in order that I might understand both the diversity in experience and the similarities and differences of shared concerns. This enabled me to obtain high quality detailed description of particular cases. It also yielded examples of issues and concerns which were shared by participants within and across sites. Lincoln and Guba (1985) suggest that sampling is terminated when no new information is forthcoming, but for me people did not fit into clear categories and I felt that in a world of multiple realities each interview would always bring forth new information.

As a result I felt further decisions about when sampling would terminate needed to emerge as the study progressed.

Interviewing

I chose to use 1:1 in-depth interviews throughout the study as the main method of data collection. An in-depth interview is seen as a conversation with a specific purpose:

“a conversation between researcher and informant focussing on the informant’s perception of self, life and experience, and expressed in his or her own words. It is the means by which the researcher can gain access to, and subsequently understand, the private interpretations of social reality that individuals hold.”

(Minichiello *et al*, 1990: 87)

However I also used informal discussion, group interviews and course documents. I intended to adopt a similar questioning style across all sites but also wanted to allow for the spontaneous generation of questions which would enable each interview to be different. I chose a *style* of interviewing designed to reflect this: the informal conversation interview. (Patton, 1987). The strength of this was that it would enable me to be highly responsive to what people were saying and the particular circumstances of the context.

The types of questions I used at all sites were broadly descriptive, and designed to help me understand the context. For example I would ask “what’s a typical day like here ?” However I would also use questions which would enable me to enquire about the complexities of the culture and the context: “If you were me what questions should I be asking you about this course ?” Other kinds of questions throughout the research fell into similar categories as those described by Taylor (1986):

- Requests for clarification - “Could you give me an example ?”
- Paraphrasing for verification - “So you’re saying that you’ve learnt other skills through PBL”
- Requests for elaboration “You said you didn’t like the way you were assessed, could you tell me some more about that ?”
- Verifying completeness “Is there anything else you’d like to add ?”

As the research progressed across different sites the questions became more creatively focussed in order to discover the depth and richness of people’s experiences. For example “If this course was an animal what would it be for you and why ?”

Trustworthiness and validity

The issue of validity is of critical importance in any research inquiry. In orthodox research validity relates to measurement and experimentation. Instead of adapting the methods from the positivist paradigm I wanted to use methods which reflected the underlying philosophy of the paradigm in use. The methods I chose were based upon a desire to maintain the values and principles underlying the study about the researcher-researched-relationship, the nature of meaning, truth and consent; values which I believed would ensure that collaboration and trustworthiness were central to the study. These methods were as follows:

Reflexivity. As the human data collecting instrument, I was central to data collection and analysis. Therefore I needed mechanisms through which I could recognise and understand the processes through which I made sense of the world. I used a research diary to provide myself with an overview of the logistics of the study which comprised a written account of what I saw, heard, experienced and thought in the process of collecting data. I described the interviews as I saw them, but also portrayed people within their contexts and roles. The research diary was also used to record methodological decisions as they took place throughout the study, and the underlying rationale for these decisions. Finally I used it as a personal diary in which to reflect upon my own biases, prejudices, impressions and speculations. It was a means of making myself subject to analysis and preventing myself from concealing the thoughts, processes and mechanisms by which the research design and analysis emerged (Heron, 1981; Lincoln and Guba, 1985).

Triangulation. I used multiple methods and data sources along with a systematic analysis of areas of convergence and contradictions in order to develop an understanding of different sorts of knowing in different contexts. For example I used data triangulation (Denzin, 1978) by using a variety of data sources such as interviewing staff, students and course designers in order to obtain different points of view. I used methodological triangulation (Denzin, 1978) by using both interviews, observations and course documents to study the relationships between espoused theories and theories-in-use (Argyris and Schön, 1974).

Member checking. I did this by checking back with those I interviewed in the field and afterwards by using transcriptions, biographies and case studies in order to establish meaning and validity. Through member checking I sought to ensure that I was representing people in a way which was credible, that I was using their words and language appropriately and interpreting what they were saying in a way which would be seen to be fair.

This was particularly important because as Elliott (1980) argues, validity can only be demonstrated to the extent to which it makes sense to the participants whose world it purports to describe. However I was aware that there was a limit to the degree in which member checking could establish validity and that what I was seeking in essence was what Dewey termed “warranted assertibility” (Dewey, 1966).

Section 3: The conduct of the study

This research initially emerged from my desire to obtain a deeper understanding of the complexities involved in PBL. My previous study (Savin, 1989) had, for me, yielded little beyond a further set of questions about the nature, uses and philosophy of PBL. From the outset of the study one quotation seemed to capture the essence of what I was setting out to do:

“If we had a keen vision and a feeling of all ordinary human life, it would be like hearing the grass grow and the squirrel’s heart beat and we should die of that roar which lies in the other side of silence”

(Eliot, 1872: 194)

I felt as if there was a silence surrounding PBL in Britain: its nature, and the reasons for its use. The study began for me as a ‘quest for certainty’ in which I hoped to discover the key characteristics and uses of PBL. I wanted to explore the “roar” in, around and beyond PBL so that I could say ‘this is how it is seen, this is how it works best, these are the pitfalls of using PBL’. This seems somewhat naive to me now but perhaps this quotation and these ideals begin to reflect some of the issues of ‘self’ within a project such as this, which ultimately bring a vitality and a creativity to the research as a whole.

The study was conducted as an iterative six phase cycle across each site:

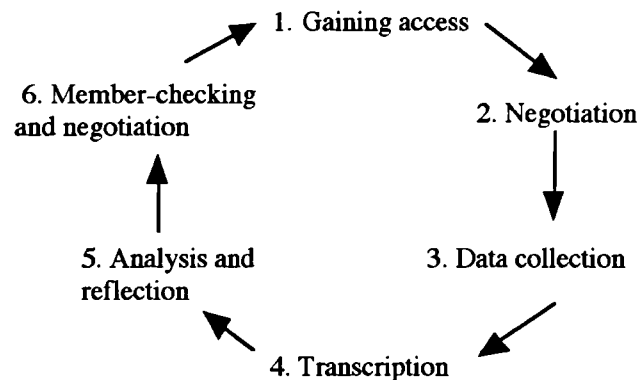


Figure 1. Research cycle

Making initial contact

I began the study by using contacts that I had in the field of education and professions allied to medicine to discover who was using PBL. Patton (1980) terms this the “known sponsor approach”. By using this tactic I would be able to use the legitimacy and the credibility of someone else in order to establish my own legitimacy and credibility. In most cases in any research project access must be obtained through formal and informal ‘gatekeepers’ (Lincoln and Guba, 1985). Thus using the “known sponsor approach” would enable me to gain access informally and also enable the informal gatekeepers to assess the risk and cost of my research to them, which could then be transmitted to the formal gatekeepers. Throughout the study this tactic was successful, although at times waiting for permission required considerable tact and patience.

The reason for using the “known sponsor approach” was not only about establishing legitimacy and credibility. I was also aware of the complexities of being an outsider researcher on a subject which still seemed to be a politically and organisationally sensitive innovation in Britain. PBL is a method of learning which may disrupt comfortable patterns of work and challenge the nature of expertise and views about the nature of knowledge. Thus to carry out research into an innovation which was seen to evoke vehement reactions (Margetson, 1991b) was tantamount to aggravating further the already frail *status quo*. Thus I needed to substantiate my reasons for using each research site, to be clear about how the information I collected would be used, and how I would deal with issues of anonymity and confidentiality. As a result when initially contacting each site I provided a written overview of the purposes of my research (Appendix 1).

First site: Gimmer University

Gimmer is a high status pre 1992 university, and the course attracts predominately middle class males who have obtained high grades in A’ level sciences. The course as a whole was modular and contained within it a problem-based optional module in a specific subject area which could only be taken in the third year of the course. The module took place over two terms and had on average 30 students taking it (Chapter 4 offers a detailed analysis of each of the research sites and presents staffs’ espoused intentions of using PBL).

I had gained access to Gimmer because *Bob*¹, the course tutor who designed and ran the PBL module was someone I had known for several years and he agreed to my request to use Gimmer as a research site.

¹ Tutors names are distinguished from students by italics throughout the thesis

Whilst at Gimmer for three weeks during February 1991, I carried out formal interviews with three staff, and seven students. I observed numerous group discussions, both formal and informal, and maintained field notes of informal conversations I had with both staff and students. During the final week I carried out member checking with students.

Challenges to design and implementation whilst in the field

Before carrying out interviews I asked participants to sign a consent form (Appendix 2). This described my purposes and explained that anonymity would be maintained, and that fictitious names would be used in written accounts. Throughout my time at Gimmer I aimed for collaborative research, explained my research interest and did not record or observe without consent.

At the outset of the inquiry I felt I needed to sample extreme or deviant cases (Lincoln and Guba, 1985) in order to maximise the information I obtained. All the students I had spoken with, except Ali, seemed to fit into “typical cases”. These were white, middle class males who left school for university at the age of 18, typical in terms of the type of student doing a ‘traditional’ engineering course. Ali, however was the only non-white student I met while I was there, although he was still male and middle class. There were two women doing this module and I was able to interview one of them, Jenny. I had expected the interview to be easier with Jenny because she was female, yet this was not the case.

At the time, I wondered whether the fact that I had found little difference in this interview compared with those of male students was because Jenny’s voice reflected the male dominated system in which she found herself. This interview in particular helped me to revisit my own values, assumptions and biases and to discover whether what I was learning was helping me to develop a better set of biases about the people and the PBL in this context.

The issue of sampling extreme or deviant cases has since become something I perceive to be a practice which is at variance with collaborative research. People have lives beyond the immediate context being studied. As such each person should be seen as a unique case, with a unique set of views and values. To see people as extreme or deviant is only to suggest that they seem more at odds with researchers’ perceptions than others in the project.

The beginnings of data analysis

Following my time at Gimmer I spent three months analysing data obtained there. This entailed transcribing the tapes and trying to establish patterns and themes arising from data. I listed themes I saw and then fitted what people said to these, rather than actually letting data speak to me. Methodologically I was “stuck in a list” and nothing was making sense. I began to ask myself “What issue holds these themes together ?” but I still struggled to move forward. It was not until over a year later, when I began to write biographical accounts (Appendix 3) of staff and students’ experiences of PBL, that I really began to make sense of the issues as spoken of by those participating in the study, as I relinquished preconceived categories.

Second site: Lember University

Lember University is a former polytechnic with a bias towards professional education. The B.Eng in Automotive Design Engineering (AMD) is a four year sandwich course with the first year common with a B.Eng mechanical engineering degree. The approach in years two and four of the course is PBL, the third year being the industrial placement. Eighteen students were undertaking it, one female, with a mixture of working and middle class, mature and 18 year olds.

I first visited Lember in July 1991, having heard through the Royal Society of Arts, (RSA) Higher Education for Capability network that Lember was using PBL.

Timothy, the course tutor and innovator of the PBL programme, was amenable to my working with staff and students and exploring their expectations and experiences of the course. Following this interview with *Timothy* I felt for the first time that the research I was undertaking was becoming a collaborative process, collaborative in a way in which I had not experienced at Gimmer. The difference was that the interview was a shared process of exploring issues rather than a procedure of asking questions and receiving answers.

During the three weeks I spent at Lember, in October and November 1991, I interviewed five staff and eight students and observed groups and teaching sessions daily. I talked with a broad spectrum of staff and students who had wide and differing views of the course. All the students undertaking this course were white and there was one woman whom I was unable to interview. At the end of the first week at Lember data yielded a number of issues which prompted me to consider questions about the nature and process of PBL as verbalised by staff and students.

For example

- How did PBL enable these students to link theory with their profession ?
- Students talked about developing skills for work. What was the means by which students developed skills for work and how did they transfer them from this learning context to the world of work ?
- Both students and tutors talked about PBL enabling students to be autonomous, but how did this materialise ?
- There seemed to be a particular culture in this course which promoted critical thinking, which staff and students suggested did not exist in other courses in the university, what did they mean by this ?
- Students often talked about PBL as a way of learning which seemed to make sense to them, more so than their experience of lecture-based courses, why was this ?

As a result of these questions and queries I explored issues around power, culture, context, and transferable skills over the next two weeks.

At the end of my second week at Lembedt I experienced one of the most challenging interviews so far. Not just in terms of the interview *per se* but because of the challenges it brought for me about the relationship between the researcher and the participants. Trevor did not wish the interview to be tape recorded, and gave short and monosyllabic answers to the questions. Throughout the interview he sat back in the chair with his arms folded making very little eye contact. In short I felt that he did not want to be interviewed at all.

I wondered how far I had pushed Trevor into being interviewed, whether he agreed to be interviewed because of peer pressure or if he had agreed to be interviewed out a sense of curiosity. However I now think that it is highly probable that I initially manipulated Trevor by persuading him to take part in the study. Klemp (1977) describes "cognitive initiative" as the way in which performers see themselves in a situation - whether they are helpless victims, or whether they see themselves as being able to change the situation. I did not really feel that Trevor was a helpless victim, because he was assertive enough to request that he should not be tape recorded and he agreed, without persuasion, to be interviewed a second time six months later. However this incident challenged me to consider who and what I might be manipulating while undertaking this study.

My final week at Lember was spent carrying out follow up interviews and exploring issues that had been raised in previous discussions and interviews in more depth. I returned to Lember in mid May 1992 to carry out member checking by:

- Feeding back key issues to staff and students.
- Playing them excerpts from the last interview to explore and clarify meanings.
- Using maps of the key issues as a focus for discussion (Appendix 4).

Data analysis

Having transcribed the tapes from Lember I began to reflect upon data in terms of issues which were either prominent or not making sense. I had heard a number of students say at Gimmer and at Lember that PBL 'forced them to think'. So I began to develop questions around this, such as "tell me about a course where you're working hard but you're not thinking." I then decided to use the following strategies at my next site, Baslow:

- To ask a group of students to talk with me about their experiences of PBL and to listen for new data.
- To take a cluster of students and use data from Lember and ask questions such as "These are some of the things other people have said about this type of learning, what does and does not relate to your own experience?"

It was also during this time of data analysis that I began to deepen my understanding of the implications of undertaking research which took its emphasis from New Paradigm Research (Reason and Rowan, 1981) and postmodern methods (Denzin and Lincoln, 1994). I did not reject the axioms of the naturalistic paradigm. Rather I embraced them and carried them on my journey away from naive inquiry towards objective subjectivity (Reason and Rowan, 1981). In practice this meant I moved away from questions about how decisions were made and implemented in PBL programmes, and questions about how groups worked and how assessments fitted with the ethos of PBL. Instead I sought to know people in their contexts, to understand how they saw themselves and their experiences in relation to PBL. I also attempted to explore the ways in which individual and personal concerns were affected by public issues such as professional accountability and higher education spending cuts. Thus I began to try and make sense and bring to the fore other dimensions of experience which affected and were affected by the contexts in which PBL was occurring.

Third site: Baslow University

In December 1992 I contacted *Joan*, the course tutor, through the RSA Higher Education for Capability network. She said that I was welcome to use Baslow for my research but explained that the PBL “wasn’t working”.

Baslow was a former Institute of Higher Education, which had just gained Polytechnic status when I began working with people there. It has since become a university. The nursing degree had recently been developed. In this degree the campus weeks comprised around 35% of the course where students received traditional lectures and some practical workshops. During clinical practice weeks students returned to campus for one PBL day each week. Around thirty students, predominantly female, were undertaking the course who were a mixture of school leavers and mature students.

I spoke with three staff and ten students, along with two groups of four students whom I interviewed twice each. Working with staff and students at Baslow raised a number of challenges, the first of which was methodological. I had felt that carrying out group interviews would provide some very rich data and that participants would be able to discuss issues without my having to intervene in the discussion process. This was largely true but the difficulty of trying to make sense of ‘who was saying what’ was much more difficult than I had imagined. I was unable to reflect back points that were made without interrupting and it was difficult to seek clarification about the ‘local knowledge’ (Geertz, 1983).

The second challenge was that at Gimmer and Lember students appeared to have understood the value and purpose of PBL, whereas for the students at Baslow there seemed to be confusion and a series of dilemmas. For example the students were saying it was a valuable day to research information in the library and reflect on practice but simultaneously that the PBL day felt muddled, and that they did not know what was expected of them.

Having transcribed tapes in the field I tried to make sense of what I had heard. It seemed to me that:

“Staff were trying to empower students, but could not let go and therefore attempts to hold on to some sort of control made the students feel as if they were not trusted. Thus the students became disempowered. However in trying to devolve power to the students staff met with rejection because students could not cope with:

- the freedom, as it didn't fit in with the context of the “rigid course”, university hours and English National Board's imposition of hours of attendance
- the responsibility for their own learning
- being given the freedom but not being trusted and not understanding this mismatch of being given freedom and having it taken away, all in one day.”

(Field record, 3 February 1992)

These questions prompted me to explore issues in depth rather than just seek a confirmation of what I thought I was hearing. I needed to be careful that I was not simplifying the issues into some sort of formula, in the same way that :

“just as the essence of food cannot be expressed in terms of calories, so the essence of life is not to be conveyed by a formula, however brilliant”

(Solzhenitsyn, 1988: 348)

Interviews with both staff and students both confirmed and challenged my questions in several ways. For example Sally was a student who said she was “niggled” by the PBL day, she did not want to be “spoon-fed” but did not want to be left to learn on her own either. The issue for Sally was, I later realised, similar to many other students in PBL programmes. Learning in a problem-based way seemed not to fit in with the way many students had learned at school, or in other components of courses they were undertaking; thus there appeared to be some sort of a hidden agenda. Salmon suggests:

“I do not think we have gone very far in understanding how it is that individual learners come to construct their own unique material. This may be because the material of learning has traditionally been viewed in different terms from those that define the learner”

(Salmon, 1989: 231)

It was at this point that themes around the relationship between learning and ‘the self’ began to emerge for me, which also reflected the shift towards postmodern methods. PBL seemed to be a challenge to students’ sense of self within a learning situation in a way which did not seem evident in more traditional ways of learning. This challenged me to consider my own view of the self as being something which was stable, consistent and coherent.

I began to see that many of the questions I was asking both myself and participants rested not only on a desire to understand people's experiences of PBL but also the ways in which these experiences did or did not relate to the broader context of their past, present and future selves. I began to realise that:

"The self today is for everyone a reflexive project - a more or less continuous interrogation of past present and future"

(Giddens, 1992: 30)

For example Janet was a student who talked about a conflict which seemed to emerge for her specifically through the PBL days, and related directly to the way she saw herself. Janet found that during lecture-based learning she was expected to learn right answers and during clinical practice she must learn the right techniques and procedures. However during PBL she was expected to think and learn for herself. This conflict challenged Janet to consider how she saw herself, and how she made sense of the differing expectations she experienced between learning which took place during PBL and learning which took place on clinical practice.

At Baslow students learnt theory from academics and then became apprentices on clinical practice whence they learn practice from practitioners. I began to realise that there was a gap between nurses who saw nursing as being client orientated and problem-based, and nurses who were more focussed on the task orientated nature of nursing. Student nurses were expected to make sense both for themselves and of themselves as well as to respond to these differing values within the profession.

As I drove home from Baslow I reflected:

- Where was the centrality of power on these courses ?
- How did staff and students see knowledge ?
- To what extent was problem-based learning enabling students to become reflective practitioners ? (Schön, 1983)
- How do students see themselves in relation to the learning, in relation to the profession, and how do they make sense of this ?

(Field record, 12 February 1992)

In September 1993 I sent data back to Baslow for member-checking and spoke with five students by telephone. One student in the study withdrew at this stage. All staff and some students agreed to comment on drafts of data analysis chapters.

Data interpretation

Until this stage in the research I had been using data analysis, as described by Lincoln and Guba (1985). For example throughout the study I sought to use a series of feedback loops and analyse data within sites, rather than across them. From this point I began to adopt a process of data interpretation (Denzin, 1989b). It was only by exploring themes and issues which both emerged not just numerous times, but also infrequently during interviews that I was able to obtain 'thick description' (Denzin, 1989b) at each site. The aim of exploring themes across the sites was a complex and difficult task during the initial collection of data. For me the emerging issues related to the people and the context in a profound way to the extent that I began to feel I was distorting what people were saying by imposing themes from other sites. Inevitably what I had heard at other sites served to induct me into some of the deeper complexities of issues such as assessment. I needed to explore what was being experienced within each context before I could make sense of the relationships between the sites. Although I felt that 'context' was vital to the research process, dealing with issues relating to context was something which was problematic throughout the study.

It was as if issues relating to context slipped in and out of focus so that I often could only see parts of the picture and not the whole. It was only later, during data interpretation, that I began to make sense of interwoven themes and issues relating to context which occurred across the sites.

I spent three months interpreting data and trying to move away from superficial lists and into clear and deeper perspectives of the issues. I had become too compartmentalised and needed to put people back into the the centre of the study.

Site four: Stanage University

Stanage University is a high status British university. Within it a social work department offers a Diploma in Social Work (Dip SW) which uses PBL as its underlying philosophy. The curriculum comprises five blocks which are spread over two years. The first, third and fifth block are based in the university, and the second and fourth are field work placements. PBL takes place primarily during campus studies and comprises a series of study units which increase in difficulty through the course. The course was in the process of expansion, so there were 45 students in the second year and 75 students in the first year.

During my time at Stanage in June 1992 I interviewed five staff and nine students, I had a number of informal conversations and was permitted to sit in on one group session.

Although I had used the 'known-sponsor approach', gaining access to Stanage involved a long process of negotiation and perseverance. Only days before I was due to go to Stanage I strained a ligament in my back, could barely sit and was unable to drive. I had waited almost 18 months to obtain access to Stanage, so despite the pain I decided to go, without realising how much this pain might affect the interviews and the people with whom I worked.

A fundamental tension emerged between my role as researcher and my 'self' that was in acute physical pain. In qualitative research there is a strong commitment to use one's self as a data gathering instrument, but managing your 'self' in the field was something which few people seemed to have addressed. During the interviews at Stanage I became irritated and often lost the thread of the conversations through poor concentration, which had detrimental effects on the interviews.

I saw this as a challenge. The discovery of what I was bringing to the research site became an increasingly prominent issue for me, and this challenge helped me to push my own boundaries and revisit my biases. During data collection at Stanage I had tried to ignore the assumptions I made about PBL and the way that language was being used in a discipline similar to my own. It was not until I left Stanage that I realised how much these taken-for-granted assumptions had affected the way I had carried out some of the interviews and how in some cases these assumptions had distorted data. I had to carry out complex member checking in order to rectify this situation.

The interview I undertook with *Janice* and its consequences exemplified this. *Janice*, who had designed the course (in conjunction with another tutor), was very enthusiastic about PBL. I found it difficult to reflect back many of the points she raised, and took exception to her suggesting I should do my data collection differently. At times I felt patronised. As a result of this and possibly the amount of pain I was in, I asked a whole series of negative questions in an unhelpful way. *Janice* told me she was upset by some of the questions I had asked - which related to some of the things students had said to me, including the issue of disempowerment, - I did not really know how to respond. This interview was appalling.

At the time I came away from it confused and ambivalent and I was told by *Janice* the following day that it had upset her a great deal. I apologised and we talked a little about it. Some weeks later she also wrote to me raising a number of points. After considerable reflection I wrote back with a further apology and a request for additional discussion. She did not reply.

For me this was an incredible time of growth through the research process. I found I had to accept that I had essentially carried out what Massarik (1981) describes as the 'asymmetrical-trust interview'. It was characterised by a substantial imbalance in the trust relationship. Massarik (1981) suggests that generally the interviewee is more trustful of the interviewer. In this case I felt that the issue of trust shifted throughout the interview. It probably began with *Janice* trusting me. The imbalance emerged when I raised a series of negative issues which led her no longer to trust me. I spent the latter part of the interview trying to retrieve the situation, but failed. Looking back I am amazed at my naivety. I had not really considered just how threatening I was as an outsider, partly because my experiences at other sites had reflected a feeling of working collaboratively.

I was becoming aware that people and their identities were central to this study, and that I too was a 'reflexive project'.

Towards the end of September 1993 I arranged to talk with the students I had interviewed. I had already sent them their short biographical accounts and a section entitled "PBL and people's lives" (Appendix 5). I used the latter as the focus for member-checking and further discussions with these students in subsequent months.

Revisiting certainty: the process of writing up

I began the process of writing up in Spring 1993. Naively I had thought that writing up would be a straight forward process and that with a clear structure and timetable I would be able to complete the thesis. I had not realised that not only was the portrayal of data a complex task but also that there were a number of dilemmas surrounding writing up a multi-site study. For example, whether to write across the sites by focussing on key themes or to aim for depth and complexity by keeping data within single sites. Alternatively I could combine the two approaches by interpreting data within the context of each site and then include a chapter on cross site issues. I did not want to lose complexity by generalising findings across the sites but I also did not want a repetitive and comparative single site approach. However following a lecture on 'Biography and Identity' I began to see new ways of mapping data and realised that it was vital to keep participants at the centre of data interpretation. MacLure and Marr argue that

“the analytic framework applied to the interview data derives from work in the analysis of discourse, and resists the construction of categories which abstract talk from its conversational context: To give an example: rather than collecting all expressions of, say, ‘commitment’ or ‘idealism’ in the interview, and then trying to identify the common meanings in these categories, across all teachers, a discourse-based approach would ask how such notions as commitment and idealism are used by different teachers to make particular points, to defend particular views or actions, to claim particular moral stances”

(MacLure and Marr, 1988: 5)

Thus I began to see that data interpretation needed to be firmly based in the experience and perspectives of the participants I was seeking to represent and understand. In November 1993 I felt that there should be a means of writing about issues pertaining to PBL across the sites, issues which related to group work, assessment and the role of the facilitator. Yet this resulted in a somewhat disparate and underdeveloped piece of work which was list-like, descriptive and superficial.

Break-through

My struggle to move beyond the descriptive level occurred through being required to take a ten month break from the thesis. This meant that when I returned to writing I had had the opportunity to stand back and reflect upon data.

I began the process of inducting myself back into data by using the biographical accounts which I had written previously as a focus for interpreting data. I used key phrases which held meaning for me and which I believed represented the key themes. For example “putting the jigsaw together” was spoken about by a tutor at one site and represented the way in which students made sense of their own learning, often for the first time, through PBL. The way in which I structured this section was to use a biography as a focal point and then to write about the issues which related to this theme across the sites. This was more analytical than previous work but still did not deal with the complexities sufficiently. Essentially I was rounding off the rough edges in data, resisting material which did not fit neat categories and ignoring the issues which I did not understand. I wanted data interpretation to be tidy, when it was not.

Turning experience into meaning and knowledge

Having tried to write across the sites I moved data back into the four sites (February 1995) and began focussing on the way in which tutors’ espoused intentions were and were not played out in practice. For the first time I began to deal with paradox, I began to see depth and to interpret data at a level of ‘subtext’. This was the tentative beginnings of finding my own voice.

Once I began to acknowledge the relationship between my own struggles and the research I had undertaken, there was a new depth in the way in which I approached data. Denzin's *Interpretive Biography* (1989a) was useful in enabling me to explore various ways of considering data in terms of thick interpretation:

"Thick interpretation attempts to unravel and record these multiple meaning structures that flow away from interactional experience. It assumes that multiple meanings will always be present in any situation. No experience has the same meaning for two individuals. This is so because meaning is emotional and biographical."

(Denzin, 1989a: 102)

I saw that I had to interpret what I was seeing, whereas before I had been expecting data to speak for themselves. I realised that I had to interpret for the reader the complexities and paradoxes which I saw, heard and experienced at these sites. This was done by considering themes which encapsulated the notion of PBL at each site. I began with the automotive engineering site, Lumbert, where people spoke of the key themes in terms of Integration, Dis-integration, Reflection, Motivation and Autonomy. Working with these themes enabled me to stand back from data and see issues in a broader context. I then wrote, in the same vein, about other sites, which I finished in May 1995. Yet by the time I had finished the third site I realised that this was just another stage and in fact data needed to be reordered, but I did not as yet know how. This realisation for me was what Denzin (1989b) refers to as a personal epiphany, an interactional moment of confronting the crisis. The crisis brought a realisation that sometimes it was necessary to write in one way in order to move on to a new stage of writing and a new level of consciousness:

"the ability to 'unfocus' from the person or group or data we are studying and to allow a kind of communion to emerge, such that we are at one and the same time in touch with our own process and with the other"

(Reason and Rowan, 1981: 113)

The certainty of multiple realities

The next stage was to make sense of this "personal circular, contradictory process of knowing, of inquiry" (Reason and Rowan, 1981: 136). I did this by making a commitment to structure data interpretation chapters in a particular way. This decision equated for me with Perry's position 7 (Perry, 1981) whereby I had made a commitment which would enable me to

"structure the relativistic world by providing focus in it and affirming the inseparable relation of the knower and the known".

(Perry, 1981: 97)

What emerged from this was a means of structuring data through three key concepts which captured complexity and paradox across the sites. These three interrelated sets of concepts (which I later termed 'stances') seemed to relate to people's experience of PBL as revealed through data, and together they encapsulated a multifaceted view of learner experience. Each stance contained within it a number of interrelated concepts which related to the over-arching concept of the stance as a whole. This breakthrough was the beginning of the development of a framework for understanding PBL, a framework which continued to develop and progress as I wrote and rewrote different chapters and discussed it with my supervisors. I had moved away from my 'quest for certainty' towards a way of seeing and interpreting the world of PBL in terms of complex layers of multiple realities.

Summary

This extraordinary journey began with real people and authentic institutions who were beset by the complex challenges of higher education in the 1990s. In the next chapter I will chart an exploration of the four institutional contexts in preparation for the presentation of the three interrelated sets of concepts ('stances') in Chapter 5.

Chapter 4. Four Faces of PBL

Introduction

This chapter will provide narrative accounts of each of the four curricula in which PBL had been implemented and describe the institutional and professional contexts of each. Thus the chapter will be divided into four sections, one for each site.

Section 1: Gimmer University

Gimmer University is a traditional university with a reputation for academic excellence. The PBL course runs alongside conventionally taught modules in the third year of a BSc in mechanical engineering.

Mechanical engineering education in context

Mechanical engineering degrees have been, and still are, taught primarily through lectures on technical theory accompanied by tutor directed laboratory work, with little opportunity for students to apply this theory to practical engineering problems. At Gimmer it was recognised that within the mechanical engineering degree there was a large emphasis on technical theory and not enough emphasis on the development of the problem-solving skills seen to be essential to engineering practice.

The BSc in mechanical engineering at Gimmer is accredited by the Institute of Mechanical Engineers who provide exemption from the professional examination. As the PBL module is a small optional component of the degree it is not affected or constrained by the professional body.

The introduction of Problem-based learning at Gimmer

PBL replaced a conventional lecture-based module in vibrations which occurred in the third year of the traditional degree programme. The PBL module aims to move away from the transmission of technical content and enable students to develop skills in using new and previously learned material to solve real engineering problems.

Issues in course design

As the course was an optional third year module it had to conform to the existing course structure, which meant fitting it into the overall timetable of thirty contact hours over twenty weeks. PBL was introduced into this particular module because in examinations students tended to avoid questions requiring problem-solving skills essential to engineering practice. PBL was also introduced because the module tutor felt that within the original lecture-based vibrations module there was too much emphasis on technical theory and too little on its practical application. Thus the aims were written to reflect a move away from the transmission of a body of knowledge towards the development of professional skills, and the capacity to solve real problems and present solutions effectively.

Problem-based learning at Gimmer: the course in practice

The BSc in mechanical engineering attracts predominately white middle class British males who have obtained high grades in A' level sciences. The problem-based module in vibrations is different from the majority of other modules in the course which are predominantly lecture-based. Since the introduction of the vibrations PBL module, two further PBL modules have been introduced, one in design and one in stress analysis.

Before the PBL module commences the students attend an introductory session which is designed to help them choose whether to take the course as one of their third year options. On average thirty students make that choice. The module comprises six problems, which are dealt with in three pairs, each pair phase lasting six or seven weeks. The problems are organised in pairs so that each group of students solve one problem acting as consultants and consider the other in the role of clients.

The 'consultant' students are required to hand in a group report offering their solution. As clients the students must devise their own criteria to evaluate the issues of the other problem so that they can assess the consultant group's solution and report effectively. Having read that report they then prepare a brief critique of it. At the end of each phase oral presentations take place with a staff member present. These take the form of a meeting during which one group represents the consultant and the other the client, the roles are then reversed for the second problem. This pattern is then repeated to cover the further two pairs of problems.

Students work in groups of 3 or 4 and can choose with whom to work. They are organised into groups primarily to reduce time spent by individual students on preparing the reports and working out the calculations, and also to reduce staff input by enabling staff to meet with groups rather than individuals. Group work was also adopted to encourage students to cooperate and learn from one another, which mirrors professional life where cooperation is the norm. Rooms are not allocated for group work nor is there a facilitator in the group. Each group chooses when and where to meet and works independently on how to present its work in the presentation sessions.

The module is coordinated by two staff members, and assisted by another, who provide some seminars and are also available for tutorials at the students' request. Students are assessed on three written consultant reports, three written client reports, oral presentations of these six reports and one solution to a question on a particular topic. More weight is given to the later problems because the earlier problems are designed to be more formative. Students are given a group mark for the reports with some individual weighting on the oral presentations.

There is also a test at the end of the module which is designed to check the individual's grasp of the basic principles of the subject.

Analysis of the espoused theories of staff

A *précis* of the espoused intentions of staff was extracted from the course documentation and staff interviews. The documented aims state that the module will seek to:

- 1) Move away from transmitting technical content towards developing the professional skills of using this material to solve real problems and of communicating the solutions effectively
- 2) Develop the students' skills of modelling, analysing and proposing practical solutions to vibrations problems in engineering
- 3) Develop the students' skill of criticising proposed solutions to problems
- 4) Develop students' appreciation of how systems vibrate
- 5) Introduce several standard methods of analysis
- 6) Develop the students' independent study skills
- 7) Develop students' oral and written presentation skills
- 8) Develop professional attitudes, including the fostering of critical faculties
- 9) Foster students' appreciation of the open-ended nature of problems

These may be categorised into four broad areas:

Aims 1), 3), 8), and 9) are concerned with the development of professional skills.

Aims 4) and 5) are concerned with the development of technical knowledge of engineering science

Aim 2) is concerned with students' practical knowledge of vibration

Aims 6) and 7) are focussed on developing students' general study skills.

The dominant preoccupations reflect the desire to encourage students to develop skills and abilities for life and work in the context of learning about vibrations engineering.

Teaching and learning methods are documented as tutorials, two of which are compulsory so that tutors can check that students are progressing satisfactorily, are adapting their learning style to a PBL course and are using their time efficiently. Thereafter no formal tutorials are scheduled barring the presentation sessions.

The course booklet suggests students may use tutors in the following ways: to discuss aspects of the course, and to obtain a brief lecture on some aspect of the course.

It is suggested, in the written documentation, that the role of the tutor is that of a facilitator of students' own learning rather than a dispenser of right answers. The intention of the course is to provide students with compulsory tutorials at the commencement of the course, and thereafter allow students to negotiate tutorials. This approach is designed to encourage students to take more responsibility for their own learning and thus achieve a more independent style of learning than elsewhere in the degree.

Staff espoused theories, which emerged from open-ended interviews and informal discussions with the three staff who were directly involved with the PBL component of the course, reflected three shared dominant preoccupations:

Analysis Staff expected that PBL would encourage students to think and question rather than just absorb information as they had done on lecture-based modules. More specifically staff intended that through PBL students would develop problem-solving skills, skills which related to the solving of a given problem. Students were also expected to decide within their group discussions the methods they would use and the knowledge which they required to solve the problem. Finally students were expected to develop skills in critiquing their own and peers' solutions to the given problem.

Autonomy Staff intended that through PBL students would become autonomous learners who could study independently. The assumption was that setting a problem for students to solve and offering gradually diminishing guidance would promote in students the ability to work and make decisions independently of staff. This form of autonomy was an ability which staff expected students to be able to transfer and utilise in the world of work.

Integration Through PBL, staff intended that students would be able not only to integrate new knowledge and concepts into their existing cognitive structure, but also to integrate knowledge across subject disciplines when solving a problem. All three tutors argued that PBL facilitated students asking questions and 'drawing in' information, resulting in students being able to see personal relevance in what was being learned. Thus PBL was also seen as enabling students to integrate what they were learning with the 'real' world of engineering.

However although these intentions were espoused, staff also expressed concerns about the way in which PBL occurred in practice. These were verbalised in five key ways:

Content coverage

Staff were concerned that, because students were learning material on their own rather than being taught it through a lecture, content would not be covered in as much depth as that given in lecture format. One staff member also argued that it was possible for some students to solve the given problems by copying work from peers and thereby not understand the material for themselves.

Individualism versus collectivism

Staff spoke of their concern about the way in which some individuals (referred to by staff as 'passengers') within groups took advantage of the work done by other group members to the extent that one of two incidents occurred. Either the group mark suffered through the lack of contribution of the passenger, or the passenger gained a better mark than he/she should have done because of being carried by the group. Staff were worried that the 'passenger problem' not only affected individual group member's marks but also the overall effectiveness of the group.

The nature of problem scenarios

Staff reflected that it was sometimes difficult to ensure that the problem scenarios were set at the correct level for degree students. One staff member felt that at times the problem scenarios used were too difficult and contained too many implicit assumptions which students would find difficult to investigate. Concern was also muted that overseas students, who had previously experienced predominantly didactic education, found it more difficult to adapt to PBL than British students.

Organisational conflict

Staff spoke of concerns relating to the conflict between the nature of PBL, with an emphasis on small group work and which encouraged autonomy, analysis and integration, and the organisational nature of the institution. Staff felt that, as the institution was designed to provide predominantly lecture-based courses, there was little flexibility for courses which adopted other teaching and learning methods. Material resources and staff time available to students who were undertaking PBL was limited by the institution.

The student experience

Staff were concerned about the students' experience in two ways. Firstly they felt that students' prior learning experience (from both other components of the mechanical engineering degree and secondary education) affected students' ability to adapt to PBL. Secondly staff were concerned that students became so enthusiastic about PBL that they marginalised other work, and possibly their social life in order to learn about something which held meaning for them.

Section two: Lembedt University

Lembedt University is a former polytechnic with a bias towards professional education. The B.Eng in Automotive Design (AMD) engineering is a four year sandwich course with the first year common with a B.Eng mechanical engineering degree. The approach in years two and four of the course is PBL, the third year being the industrial placement.

Automotive design education in context

There has been increasing criticism of engineering design and designers in the United Kingdom and the shortcomings are believed to be handicapping the UK's competitiveness in the markets for manufactured goods. In the late 1980s the Department of Education and Science encouraged innovation in this area, particularly encouraging the introduction of studio-based degrees which have strength in design teaching.

The introduction of Problem-based learning at Lembedt

In response to these issues raised (above) by the Government, experts in industry were consulted regarding the need for a course which would centre around mechanical engineering design, focussing on products of the automotive industry. They identified a need for designers who

“are masters of the total engineering function, holistic thinkers who can take responsibility for the process from concept through to production and on into service”

(Lembedt course document, 1989)

It was in response to these issues that the problem-based curriculum was developed, with the aim that the course would encourage students to develop engineering design skills synonymous with those required in professional practice.

Issues in course design

The course was designed by first identifying detailed objectives which stated the skills, knowledge and general characteristics of a designer. It was this set of objectives which led to the choice of PBL. To ensure that the objectives were achieved the assessment was directly linked with course objectives.

Problem-based learning at Lembedt: the course in practice

Students enrol in the course having first selected whether to take the automotive engineering route or the conventional mechanical engineering degree. Students taking this course have either undertaken a Higher National Diploma (HND), or equivalent qualification, and immediately entered the course, or have completed 1 year of the traditional mechanical engineering degree.

Thus for many students the first year of the degree is a conventional pattern of lectures, practicals and unseen exams. Students first encounter PBL in year two.

This PBL course had 18 students undertaking it, predominantly white British males, with a mixture of working and middle class, mature and 18 year olds. The course has since expanded to take 30 students per annum. Eight staff in total are involved in various components of this course. The students are introduced to PBL, an experiential learning cycle (based upon Kolb and Fry, 1975) and the notion of a learning journal in which they are expected to record their reflections on learning. Students receive a course guide which explains the rationale, objectives and content of the course. The course is structured around a series of modules which, although predominantly discipline based, overlap because of the nature of problem scenarios that students are expected to solve. For example, in designing a suspension system in solid mechanics students would also be expected to incorporate facets of basic car design.

Students work in groups of four or five and can choose with whom to work for some of the problems which are set, but are allocated to groups for others - this largely depends on the tutor who has set the problem. The pace at which new problems are introduced depends on the level of students' understanding rather than a fixed timetable. Students' level of understanding is ascertained by members of staff teaching particular modules through informal group discussion with students. Lecturing is included in the course but is limited to information which is required to solve a given problem, and consequently does not fit into any form of schedule. The students have a design studio allocated for their sole use and may work in the room from 9 am - 9 pm. Each group works independently and does not have a facilitator, but does have access to the members of staff who have set the problems.

Students are assessed by continuous assessment methods through various types of problems which are set by the members of staff for each module. The problems set include an array of methods from model making to open ended design projects.

The problems set are generally group based although there are also individual projects and an individual final year project. In the group based work each group presents their solution orally and hands in a report prepared by the group as a whole. Self-assessment and peer assessment are used to enable students to identify individual and group skills and attitudes. Tutor assessment forms the major component of the assessment process. Students are additionally expected to keep a log book and learning journal which are also assessed. Assessment is carried out against criteria taken from the detailed course objectives.

Analysis of the espoused theories of staff

A *précis* of the espoused intentions of staff was extracted from the automotive design engineering course documentation. The documented aims state that the course will seek to produce men and women who:

- 1) have the motivation, initiative, mental stamina and independence to take design projects to a successful conclusion
- 2) can exploit their creative potential in the design of properly engineered products, components and systems, taking full account of technical performance and integrity and commercial viability.
- 3) have the ability to develop their knowledge and skills independently
- 4) are well organised and who can target their energy effectively in meeting the demands of design specifications
- 5) have a deep understanding of a broad body of scientific knowledge and technique which can be applied creatively
- 6) possess a sound mathematical foundation and technique
- 7) have an understanding of the technologies of materials and manufacture with a particular awareness of their impact on product cost and weight
- 8) exhibit the intellectual capacity to visualise not only three dimensional bodies, but also the motions, forces, thermal and electrical systems which may affect them
- 9) possess a working knowledge of machine theory and the use of machine elements in practice
- 10) understand thoroughly the workings of a manufacturing enterprise both technically and commercially
- 11) are able to work to a budget and within time constraints
- 12) exhibit the intellectual power to synthesise; to bring together and apply a breadth of knowledge and experience in the creation of economically viable products and systems
- 13) are able to describe products and systems unambiguously through drawings and technical data, the detail of which enables economic manufacture

The key aims would seem to be 1) and 2) since following interviews and informal discussion with staff they appear to reflect the dominant preoccupations of the course as a whole. These aims demonstrate the desire to produce designers who are inventive, motivated, imaginative, attuned to market concerns and competent to practise, before arriving at the work place.

Aims 8) and 12) appear to be utopian ideals based on aims 1) and 2) and are driven by increasing criticism of engineering design and designers in the United Kingdom.

Teaching and learning methods were described within the course document in broad terms reflecting the variety of methods in use. The course document only mentions PBL once, despite this method of learning being the focus for the whole curriculum, and it mentions little regarding the way in which PBL is intended to work out in practice. However it does state that a major characteristic of engineering designers is seen to be the motivation to learn independently and to continue to learn, and to be able to develop process skills through reflecting on the processes they are using.

Five staff, who were directly involved in the PBL programme at Lumbert, volunteered to be part of this study. The espoused theories of these staff, which emerged from open-ended interviews and informal discussions, reflected four dominant preoccupations: integration, autonomy, motivation and reflection.

Integration Staff's espoused aims for students' progression through the course was that students should increasingly integrate theory with practice by analysing the problem to be solved, applying prior knowledge and offering a solution to the given problem. Staff intended that students should be able to integrate prior learning experiences with the material which was currently being learned. Furthermore staff expected that students would be able to make sense of components of knowledge which overlapped across subject areas whilst being able to link their own personal creativity with engineering techniques. Finally staff intended that students should integrate learning, which they had undertaken as individuals, into the group learning process.

Autonomy. Staff expected students to be able to identify their own learning needs and be able to gather information in response to these needs. Students were required to organise themselves and group activities, which included the designing, planning and setting up of experiments and the production of design solutions. Finally tutors felt students should be able to decide independently when and whether to ask for help.

Motivation Staff intended that students should be diligent in not only applying themselves to tasks and completing them, but also completing them within the given time frame. Students were expected to strive for high quality content and presentation of work, and be motivated to continue to learn about new technologies and manufacturing techniques both during and subsequent to the completion of the course.

Reflection Staff required students to be self critical, self reflective and to appraise others in order to be able to review approaches, procedure, methods of design and change where appropriate. Students were also expected to be able to accept critical appraisal positively from peers, tutors and industrial supervisors, with a view to learning from the experience.

Although these intentions were espoused, staff also expressed concern about the way in which PBL worked out in practice. These were verbalised in five key ways:

Relationship between learning and assessment methods

Staff expressed concern about the way in which the assessment process, rather than the learning process, appeared to be the focus for the students. This was apparent in the extent to which students developed strategies to obtain high marks with minimum effort. They were also apprehensive about there being too many assessments with deadlines too close together with insufficient feedback. Yet staff also argued that, as PBL was a method of learning which focussed on the process of learning rather than just the outcome, it was probably important to include more student self-assessment. They felt that students were more equipped to assess the process of what had actually been learned than staff, and were in the process of addressing ways in which this could be implemented. Finally, in the area of assessment, staff reflected their concern about the difficulties of assessing individual students through group assessment.

Individualism versus collectivism

Staff expressed concern that there was often a competitive nature between the PBL groups, and also sometimes between individual students within a PBL group.

The nature of the problem scenario

Staff were concerned that some of the problem scenarios used were poorly specified and appeared to have unclear outcomes.

Content coverage

There was conflict between differing staff members about the quantity of basic science which needed to be covered. Staff teaching one subject area expressed concern that there was less depth and rigour in the teaching of basic science than in the traditional programme. Whereas staff teaching another subject area argued that it was more important for students to be able to understand and synthesise information than to have gained a particular depth of coverage.

Organisational conflict

A number of staff were apprehensive about the way in which the move towards modularisation and the growing business ethic of the university would affect the quality of the course. Staff argued that PBL and modularisation were incompatible since the latter would fragment the former. They also felt that there was an increasing institutional emphasis on procuring funds rather than valuing quality learning, an attitude which would, in the long term, undermine the PBL programme.

Section three: Baslow University

Baslow is a former Institute of Higher Education, which gained Polytechnic status and has since become a University. The nursing programme at Baslow has experienced a number of changes in recent years. For example in 1990, following permission being refused to commence Project 2000, a diploma course was implemented which had only two intakes. In 1991 the Project 2000 degree commenced, which consequently occurred in tandem with the diploma course. It was during this process of change that it was decided to include PBL in the degree programme.

Nursing education in context

Nurse training in the past was typically carried out in nursing schools or colleges attached to hospitals. Student nurses were classed as part of the National Health Service (NHS) at an apprenticeship level. The professional body decided to make major changes in the structure of training and saw the role of higher education as crucial in this. It set out its proposal in a document named Project 2000 which had far reaching structural implications for the profession. The first project 2000 course began in 1989 with the first trained nurses qualifying from it in 1992. As a result, both nursing courses and the profession have been experiencing a period of change, moving away from the apprenticeship model of learning that has been in place for decades, towards learning which takes place in the context of higher education.

Nursing courses in England are validated by the English National Board (ENB) as a representative body of the United Kingdom Central Council (UKCC) which is concerned with the registration of nurses.

The introduction of Problem-based learning at Baslow

The Project 2000 degree course is divided into two components which are consecutive and are each three terms in length: the common foundation programme and the branch programme. Students spend a total of 72 weeks on clinical practice over the three year degree programme. The common foundation programme takes up twenty of these weeks. It comprises five four week periods and ensures that the students have a range of experiences in the major areas of nursing practice. During these five periods students return to campus for one PBL day each week. Campus weeks comprise around 35% of the course, during which students receive traditional lectures and participate in some practical workshops. The staff/student contact time is very high, with students being timetabled for over twenty hours per week.

Issues in course design

In planning the degree programme, course designers decided that it would be a useful activity for students to return to the university from clinical practice for one day each week. These were initially discussed and planned during course design meetings as reflective days, but later documented in the course submission document as both a reflective and a PBL day. In reality it was decided to use PBL methods during this one day on campus during clinical practice weeks, since PBL was seen by staff to incorporate reflection.

Staff felt it vital that degree students became as self-directed as possible during the common foundation programme (the first eighteen months of the course) and they felt that PBL would enable this to occur. Staff saw the difference between a diploma student and a degree student as being rooted in the way in which students acquired and used their knowledge. Degree students were seen to be able to learn how to learn for themselves.

Problem-based learning at Baslow: the course in practice

There were thirty students on the course, predominantly white British females, a mixture of school leavers and mature students. Six of the students were training to be midwives and four students were undertaking the mental health branch of the programme. Neither of these groups took part in PBL. The rest of the cohort were training to be registered general nurses and were all involved in the PBL component of the course. The course uses PBL to facilitate reflection one day a week, and it is designed to be centred around problems and issues which occur to students while they are in the clinical environment. Students are given, in advance of their placements, a log book which contains topic areas for each week and includes a profile of the different facets of the topic about which the students can collect data. Thus students are expected to generate their own problem scenarios from issues which arise from their experience of clinical practice, but which also fit within a designated area defined by the tutor. For example students may be designated a subject such as 'the concept of care' as the topic for one week. They are then expected to consider this concept whilst on clinical practice and subsequently return to campus with a problem scenario which they have experienced and which relates to the given topic.

The students work in groups of six or seven for the day. They are allocated to these groups and have a facilitator with them at the beginning and the end of the day. The groups initially comprised students who were all doing placements in differing clinical areas, but as the students objected to this they now work in groups where everyone is practising in the same or similar clinical areas. After the initial meeting students are given a 'problem sheet' which is designed to prompt them.

They are then free to use the library or allocated rooms for the rest of the day. Students must return at the end of the day to present their findings to the tutors and the student body. The problem-based component of the course is not assessed summatively, although students are expected to submit a folio of work they have completed which relates to the PBL days. Three members of staff are involved in PBL; one member of staff has overall responsibility for designing and managing the PBL day, and the two other members of staff act as facilitators to the groups.

Analysis of the espoused theories of staff

A *précis* of the espoused intentions of staff was extracted from the course document. The documented course aims state the following:

- 1) Students will return from practice placement to the university to reflect on the learning experience obtained during their placement
- 2) Students will be encouraged to assess their own performance and the quality and quantity of nursing skills they have acquired
- 3) PBL days are arranged to
 - a) maximise students participation
 - b) create a feeling of autonomy and responsibility for their own learning
 - c) utilise the reflective component of Kolb's experiential learning cycle
 - d) ensure an effective relationship of theory and practice

The course booklet describes PBL in the context of the nursing practice and placement themes. The aims of PBL reflect the desire to produce nurses who are reflective practitioners and autonomous learners who are able to evaluate the effectiveness of their own learning. PBL is designed to facilitate the integration of theory with practice through reflection. The assumption is that through encountering problems in practice, students will be able to develop skills in reflection and be increasingly able to synthesise theory with practice. This process was designed to be facilitated by nurse mentors in practice placements and through peer discussion during the PBL days. What is not clear from the course document is the type and level of problems through which students will be expected to learn, and the ways in which reflection and synthesis may be facilitated by peers, mentors and tutors. Furthermore, although the students are expected to work and learn through groups, the aims of the course only talk about the desire to 'maximise student participation' which may refer to student participation in the learning process or participation in the group, or something different. Group work is not raised or discussed in the course documentation. This would seem to be a key omission given the explicit focus on group work in reality.

Staff espoused theories, which emerged from open-ended interviews and informal discussions with the four staff who were directly involved with the PBL component of the course, reflected four dominant preoccupations: integration, autonomy, reflection and evaluation.

Integration Staff intended that, through PBL, students would be enabled to focus upon particular issues and problems which emerged from clinical practice and to use previously learned theory to solve these problems. Staff expected that students would also learn to integrate theory that they had learnt on campus with the experiences they were having in practice. However staff did not just expect that PBL would enable students to integrate discipline-based theory learned on campus, for example orthopaedics, to the same discipline in clinical practice. They intended that students should integrate theory and practice across discipline boundaries. For example, being able to apply the theory of 'concepts of care' within psychiatry and physical medicine. Finally staff expected that through PBL students would learn to become integrated as a group and would work and learn together effectively as a team.

Autonomy Staff intended that PBL would facilitate in students the ability to become self-directed learners. Self-directed learning was defined in terms of students being able to identify their own learning needs and work with increasingly reduced guidance from tutors.

Reflection Through PBL staff intended that students should develop the ability to be self critical and to think critically about their own nursing practice. Staff also expected students to reflect upon the experience of clinical practice and to learn through the process of reflection.

Evaluation Staff intended, that through discussion of problem scenarios, students would develop an ability to question current nursing practice, and the underlying assumptions and values of that practice. Students were also required to evaluate their own learning, not only that which occurred in practice, but also that undertaken on campus.

Additionally, staff also expressed concerns about the way in which PBL worked out in practice. These were verbalised in three key ways:

Organisational conflict

Staff raised concerns about the way in which the necessity of fulfilling the requirements of a professional qualification, with clearly defined objectives, and the curriculum guidelines of the university resulted in a highly structured curriculum. The introduction of PBL resulted in a contrast between tightly scheduled days during campus weeks and the relative freedom of the PBL days which occurred during clinical practice weeks. Staff felt this difference caused difficulties in students knowing how to structure their own time during PBL days.

Staff expectations

Staff expressed concern about the way in which their own apprehension about PBL had affected students' ability to adapt to PBL. For example one tutor felt that her lack of trust in the students resulted in students experiencing conflict during PBL. For example she had offered them freedom to learn for themselves but had expected them to return at the end of the PBL day in order to demonstrate what they had learned. A further concern expressed by a number of staff was that because as staff members they were not entirely clear about how to implement PBL in practice, they were not able to facilitate students learning through PBL. Thus students did not understand how they were supposed to learn through the PBL days.

Students' prior experience

Staff were concerned that students of school leaving age lacked the life experience to be able to adapt to PBL. They were also apprehensive about the extent to which students with low grade A' levels would be able to adapt to PBL compared with those with high grades.

Section four: Stanage University

Stanage University is a high status British university. Within it a social work department offers a Diploma in Social Work (Dip SW) which uses PBL as its underlying philosophy.

Social work education in context

Social work education experienced a period of change in the 1980s and through a debate between the Central Council for the Education and Training of Social Workers (CCETSW), the employing agencies and the Department of Health, an uneasy compromise was reached in which all graduate courses were extended to two years and a new qualification - the Dip SW was introduced. The requirements for this qualification were expressed by CCETSW (CCETSW, 1989) in learning outcomes rather than programme content, which for some social work courses provided an opportunity for change.

The introduction of Problem-based learning at Stanage

The change from a traditional academic curriculum to this new PBL style was due to a number of reasons. Firstly there was curricular overload due to new material being introduced to add to existing material which was still felt to be relevant. There was difficulty in enabling students to make effective use of what they brought with them to the course in terms of prior experience, and an associated problem was that students perceived valued knowledge as that held exclusively by staff. A third reason was that students on social work courses often experienced difficulty applying theory to practice and tended to leave behind any theoretical knowledge they had acquired in their campus studies when they were on fieldwork placements.

Issues in course design

PBL was introduced in order to address the above issues but also because the view was taken that working in small groups would provide stimulation and support from peers, a pool of experience on which to draw and opportunities for personal and professional development. Students would be prepared through this for working in professional teams. PBL was also introduced because it was felt that it was vital for students to learn strategies for problem analysis and intervention, and be motivated to continue to learn and acquire further skills, particularly in order to work effectively in a constantly changing society. The course aims, objectives and the problem scenarios were written to reflect all of these concerns.

Problem-based learning at Stanage: the course in practice

At Stanage the social work curriculum consists of five blocks which are spread over two years. The first, third and fifth block are based in the university, and the second and fourth in field work placements. PBL takes place primarily during campus studies and comprises a series of study units which increase in complexity through the course. The study units are developed from situations and problems derived from practice so that the theoretical work done on campus will be directly relevant to practice placements and to future experience as qualified social workers. The problem scenarios are designed to provide opportunities for learning to enable the students to reach the level of competence in the Statement of Requirements for the Dip SW set out in Paper 30 (CCETSW, 1989).

The two year diploma course attracts a variety of people, who defined themselves as working and middle class, but were predominantly British and white. As it is a social work course all the students are at least 22 years of age on admission to the course. Some students have first degrees, others have not and there tends to be a high proportion of non graduate working class students. PBL essentially begins from day one of the course, but before students are accepted on to the course they see a video of PBL 'in action' which is then discussed so that they have some understanding of the type of course to which they are committing themselves. The course was in the process of expansion, so that there were 45 second year students and 75 first year. There are now 80 students in each year and eight staff involved with the programme.

The students work in groups of about ten and each group stays together for the duration of the whole block, which is approximately ten weeks. There is a different study unit every two weeks, each unit comprises several (usually three) problem scenarios. Students are expected to tackle the work in the time available for the unit which involves analysing each problem, looking at personal, ethical, social, legal and political dimensions. Guided by a facilitator they establish what skills, knowledge and understanding they have, then identify what skills they need to practise and what knowledge they need to acquire in order to work through the situation or problem. At the end of the block the groups are re-formed and students then work through the next series of units. Each group is allocated a room in which to meet, and usually convenes about three times each week. The students use resources such as videos, library facilities, departmental information and consultations with experts. There are also skills groups, one or two lectures per week, and one or two workshops per term on aspects of discrimination. Students are assessed predominantly through essays which are done by them as individuals. Work which takes place in the group, or which is done by the group, is not assessed.

Staff input comprises designing and planning study units, the facilitating of groups, acting as consultants on particular topics and acting as personal tutors to students. However in order to foster student autonomy and to be economical with human resources the facilitator does not attend all the meetings, but will usually be present at the beginning and end of each unit.

Analysis of the espoused theories of staff

A *précis* of the espoused intentions of staff was extracted from the course document and staff interviews. The course booklet documents six aims and a list of comprehensive objectives for each block. The course aims to:

- 1) Enable students to integrate effectively their learning across disciplines and subjects, between university-based work and placements
- 2) Provide a style of learning and a learning environment suited to the needs of adult learners on a professional training course
- 3) Value and make use of the previous learning and experience which students bring to the course
- 4) Enable students to become self-directed, taking more responsibility and control over what and how they learn
- 5) Encourage students to become life-long learners, who will be equipped to continue to develop their professional skills and knowledge-base, and to respond to the new challenges faced by social workers
- 6) Give explicit preparation for collaborative professional team work

Aim 1 is concerned with students' ability to integrate theory with practice effectively. Aims 2, 3 and 4 reflect the central organising principle of the course which is the promotion of student autonomy and self-directedness. This is intended to arise through a focus upon adult learning principles and the facilitation of peer and self evaluation. Aims 5 and 6 reflect the desire to equip students to be competent practitioners who are equipped with skills, values and knowledge for the world of work and who will continue to develop these throughout their careers.

Overall these aims reflect the intention to produce competent social workers who will establish a shared approach to problem-solving with clients and develop and evaluate their own skills and those of others. However the anti discriminatory framework within which qualifying students will be expected to work, although discussed in detail within the course booklet, is not included as a specific course aim.

Teaching and learning methods were described in the course booklet as comprising practice placements, study unit groups, a skills development programme and independently negotiated work which occurs by agreement with students' personal tutors. They also include two lecture series and learning associated with a particular area of practice. Specific objectives relating to the process of learning are included within each block. These reflect the intention that students will progress from taking responsibility for their own learning and identifying their own learning needs at the beginning of the course, towards independence in study groups and taking increasing responsibility for the way in which the course operates.

Staff espoused intentions, as spoken of in open-ended interviews and informal discussions with the five staff who were directly involved with the PBL component of the course, reflected four dominant preoccupations:

Autonomy Staff intended that students should develop personal autonomy which comprised qualities of moral and intellectual as well as emotional independence. Thus students would be expected to set their own goals and objectives for learning. They also intended that students would increasingly accept responsibility for their own learning with the result that students graduating from the programme would be equipped as life-long learners.

Analysis Through PBL staff intended that students would be enabled to become questioning and critical practitioners; practitioners who would not only evaluate themselves and their peers effectively, but be able to analyse the shortcomings of policy and practice. In the light of these shortcomings staff expected that such students would be equipped to argue for change.

Integration Staff intended that as students increasingly recognised the knowledge and skills they as individuals brought to the group, they would be able to build upon and integrate previously learned knowledge and skills with material which was currently being learned.

Collaboration Staff intended that by working and learning in groups students would develop skills vital for collaborative teamwork. Staff expected that students would not only learn about group theory through practical experience but also that they would learn the value of mutual help and support.

Although these intentions were espoused staff also expressed concerns about the way in which PBL worked out in practice. These were verbalised in four key ways:

Organisational conflict

Staff were concerned that the requirements for the PBL course differed from other courses within the university and thus the lack of resources within the university affected the overall effectiveness of the PBL programme more than others. This included the use of rooms and materials available from the library. Organisational conflict did not only relate to the relationship between the university and the curriculum but also the relationship between the course and practitioners.

Practitioners found adapting to the concept of PBL difficult, and students had been told in some areas of practice that they were asking too many questions. Staff were concerned that students were receiving different messages about the ways in which they were expected to learn: one from practitioners, another from tutors.

Assessment

Staff were concerned about the way in which they felt the assessment process undermined the collective ethos of group work. Staff were also apprehensive about assessment appearing to be a unilateral activity carried out by staff, in a course where students were expected to be self-directed.

The role of the facilitator

Staff spoke of the difficulties they experienced, both in adapting to the role of being a facilitator, as opposed to being a lecturer, and also in the dilemmas associated with that role. Staff were concerned about the way in which their own difficulties in adapting to this new role affected the PBL groups.

Issues in Problem-based learning course design

Staff raised a number of different concerns about the design of the curriculum. Firstly they felt that it was overloaded with content and consequently students had difficulty in setting boundaries about how much to learn and in what depth. There was some concern about the extent to which the problem scenario encouraged critical thinking or whether it just encouraged the students to solve the given problem. Finally there was concern about the role of lectures in the course; how and when they should be used and their underlying function.

Summary

This chapter illustrates the way in which PBL differs across distinct professions and institutional contexts. The contrasts between staffs' espoused intentions and their concerns about the way in which PBL occurred in practice, demonstrate some of the complexities involved in this method of learning. Student experiences of PBL, as revealed through this study, reflect some of these complexities, but also relate to three particular interrelated concepts ('learner stances') in students' lives. These stances will be presented in Chapter 5 and explored further in Chapters 6,7, and 8.

Part 2.

Chapter 5.

Dimensions of Learner Experience

Introduction

This chapter will present the development of a conceptual story about PBL but will also introduce an empirical story. It raises questions and issues which will later be explored in Chapter 9. The first section of the chapter will explore three interrelated sets of concepts which seemed to arise from PBL as revealed through this study. These are termed 'Dimensions of Learner Experience' and comprise three 'stances'. The second section will present the notion of 'transitions in learning'.

Dimensions of Learner Experience comprise the notions of Personal stance, Pedagogical stance and Interactional stance. Together the three stances encapsulate a multifaceted view of learner experience and, whilst overlapping in a variety of ways, the stances are discussed as separate entities within this chapter. Although the relationship between the stances is discussed during this chapter, it will largely be explored within Chapters 6 to 9 inclusively. Each stance contains within it a number of interrelated concepts, referred to as 'domains', which relate to the over-arching concept of the stance as a whole.

The second component of this chapter will describe 'transitions' in learning which occurred within different stances and at distinct moments in time. PBL has been implemented by many in order to offer students opportunities to develop independence in inquiry, form their own decisions and 'own' their own learning experiences (Barrows and Tamblyn, 1980; Boud, 1985; Boud and Feletti, 1991). In this study it was these very opportunities which appeared to present a challenge to students' ways of seeing the world which prompted transitions in students' learning from disjunction to integration, and *vice versa*. Transitions seemed to be associated with particular kinds of relationship and circumstance which were experienced by students as enabling or disabling.

Dimensions of Learner Experience

This section describes and explains the concept of different ‘stances’ in learning. However it begins by exploring the notion of stance.

Stance is used here in the sense of one’s attitude, belief or disposition towards a particular context, person or experience. It refers to a particular position one takes up in life towards something, at a particular point in time. The term ‘stance’ was chosen because it reflects the idea that a person has made some form of choice, they have developed a stance towards something, whether consciously or unconsciously. Thus stance is not just a matter of attitude, it encompasses our unconscious beliefs and prejudices, our prior learning experiences, our perceptions of tutors, peers and learning situations, our past, present and future selves.

Dimensions of Learner Experience arose from this study as three interrelated concepts which emerged from accounts of students’ experiences of PBL. Students spoke of these experiences predominantly in terms of the ways they saw themselves ‘in relation’ to the learning context, their views of themselves as learners, their relationships with peers. Hence *personal*, *pedagogical* and *interactional* stances have been used to denote these interrelated concepts. Although other stances were considered, it was these three which most effectively captured the richness and complexity of learner experience within each of the four sites. Epistemological stance was considered, yet within this study issues relating to epistemology were seen to relate directly to issues of pedagogy. For example students’ adoption of a particular pedagogical stance appeared to relate to the way in which they perceived the nature of knowledge. Similarly professional stance could have been a further option. Yet the way in which students saw themselves as future professionals appeared to equate more with a particular view of themselves rather than differing models of professional behaviour they had experienced or to which they aspired. Hence the way in which students saw themselves as future professionals was included within the section on personal stance.

In this chapter the three stances will be defined, as will each of the ‘domains’ within each stance. The term ‘domain’ is used here to denote the discrete spheres within each stance and it was chosen to reflect the notion that there are particular locations within each of the stances between which a person may move. Thus each stance comprises a number of domains. The learner is seen to experience three differing stances which operate simultaneously and contain a number of discrete but interrelated domains. However a learner may only be within one domain within each stance at any one time. Movement (Transitions) within each stance is not seen to be developmentally progressive towards a higher level of existence but instead movement is seen as a shift away from the learner’s current way of understanding.

Transitions may therefore be towards either a greater or a diminished sense of integration or disjunction within the domain. Movement may also involve a shift from one domain to another, which will also involve proceeding towards or away from a sense of disjunction or integration.

Personal stance

Personal stance is a term originally coined by Salmon:

“Taking the metaphor of personal stance gives a different meaning, not just to learning, but also to teaching, which, as teachers, we think about less often than we should. Because personal stance refers to the positions which each of us takes up in life, this metaphor emphasises aspects of experience which go deeper than the merely cognitive, and which reflect its essentially relational, social and agentic character.”

(Salmon, 1989: 231)

In this study personal stance is used to depict the way in which participants see themselves in relation to the learning context and give their own distinctive meaning to their experience of that context. Personal stance encompasses the means by which they discover, define and place themselves within the PBL environment and express the interplay between what they bring to, and take from, their learning experiences. The ways in which people speak about themselves, view their profession, their peers, the facilitator and the institution are in this study explored within the conceptual framework of personal stance.

To talk of people having a personal stance is often to assume that people *know* what their personal stance is. Yet students did not use the phrase ‘personal stance’ but instead spoke of themselves in terms of the relationship between their learning, their personal biographies and the higher education context in which they were being taught. When students spoke of issues which I would attribute as being associated with the notion of personal stance, they spoke of their particular view of the world and the way that view had been challenged or changed through some catalyst within the learning context. Catalysts varied according to students’ circumstances, and particular features and dynamics of the learning context, about which they felt differently at different times and which often brought about transitions in learning.

Transitions in students’ personal stance were often sites of struggle. Transitions were sometimes difficult and disturbing and they seemed to be where personal change took place. For example, for some students the contrast between prior learning experiences and PBL produced conflict about the nature of personal responsibility within a learning context. During prior learning experiences some had come to equate ‘responsibility’ with learning right answers as defined by teachers. In PBL responsibility often meant identifying personal learning needs and fulfilling those needs. Personal change might take place when students were able to accept and make the shift from authority centred learning to learning which related to their own needs as learners.

Thus personal stances could change according to the learning context and according to students' self perceptions at particular times in their lives. Personal stance by its very nature is always transient. Various domains at various points may become integrated while others may remain fragmented.

Across the four sites personal stance seemed to be expressed in five distinctive ways by students. These are captured through the following domains:

Fragmentation

Learning through PBL can challenge students' current sense of self, and the way in which they both see the world and act within it. This can result in a sense of fragmentation which relates to prior experiences of learning, as well as to their relationships with others. For a number of students this was characterised by a conflict between their expectations of, and their encounter with, a learning context that contrasted sharply with prior learning experiences. Yet, for one student fragmentation was a positive experience which was found to be developmental.

A critical difference between positive and negative fragmentation seemed to be related to student identity/self-esteem. Positive fragmentation arose out of a strong self-confidence in being able to manage uncertainty. Negative fragmentation arose out of poor self-esteem which resulted in fear and anger in the face of uncertainty.

Personal stance in this domain can relate to the extent to which core aspects of students' values and beliefs felt at risk or were threatened through uncertainty.

Discovering my self

A number of students spoke of the way in which PBL had offered them a learning situation in which they had felt able to promote their own development. Thus they defined their personal stance in terms of self-discovery. Students in this study capture the different ways in which distinct forms of self-validation were the means by which self-discovery occurred. This for many was the beginning of a journey towards an understanding of their own personal stance. A number of students spoke about self-validation as a positive experience which occurred through support from others, often peers, sometimes staff, periodically both. One student however experienced self-discovery through encountering conflict between his own values and those he felt were implicit within the course.

The existence and nature of support available on the course, from staff or students, appeared to be key to the extent to which self-discovery was experienced as positive or negative.

Personal stance in this domain can relate to the way in which learning promotes a reflexive search for self-knowledge and self improvement within students. Alternatively learning may prompt conflict which forces a reappraisal of personal values.

Defining my future self

Students can also position themselves in the learning context in terms of their view of themselves as future professionals. They seek to understand themselves and the learning they are undertaking in terms of a perceived future role. In this study students spoke about themselves in terms of the relationship between their current self and their perceived future self. Thus several students classified their personal stance in terms of “being a good engineer”, “thinking like a designer” “more of a student than a nurse”. Consequently many defined themselves in relation to qualities to which they aspired or with which they did not wish to be associated.

Personal stance in this domain is defined in terms of students’ ability to see relevance in the material being learned in relation to their future self. The way students place themselves in the learning environment as a future professional governs the possibilities and limits of engagement with the material, others and the context.

Placing myself in relation to my ‘life-world’

For a third of the students in the study personal stance captured an ability through PBL both to discover and give meaning to their ‘life-world’:

“Subjective reality has in continental European phenomenology traditionally been denoted as the ‘life-world’ of human beings. According to that tradition the life-world is to be considered as a stock of taken-for-granted perspectives or a reservoir of interpretation patterns which are culturally transmitted and organised in a communicative way.”

(Wildemeersch, 1989: 63)

In this study learning in a problem-based way challenged students to confront the relationship between the previous experiences of their life-world and their new experiences (emerging from interaction with the objective world). This could lead to new understandings of their own reality. Thus students might speak of inner resonance between their life-world and what was being learned. For example, through exploring the notion of dysfunction within families, students at Stanage confronted not only the objective reality of recent legislation relating to children, but also their own experiences of family life and the subjectivity of their own norms and values.

Themes emerged about the way in which students placed themselves in relation to their life-world. For example students spoke of being able, often for the first time, to engage effectively with what was being learned. This was stimulated by their experiences of learning through PBL. This engagement occurred through a heightened awareness of the relationship between students' prior experience and the material. Valuing and acknowledging prior experience is seen by many to be a key component of PBL (Barrows and Tamblyn, 1980; Boud and Feletti, 1991). At Lember and Stanage students spoken of the way in which learning to value their prior experience had facilitated their learning. This was also so at Gimmer and Baslow but to a lesser degree.

Personal stance in this domain captures the idea that through PBL students gain a heightened understanding of their own reality because of the way in which PBL facilitates the mediation between their subjective world and the objective world.

Re-placing myself: knowing the world differently

The notion of 'knowing the world differently' captures the idea that students were able to frame their learning experiences for themselves and simultaneously challenge the institutions and sociopolitical contexts in which they lived, worked and learned. Thus students within this domain were able to take up alternative perspectives in order to challenge both themselves and the world. Several students in the study had begun to move *towards* the position of 'knowing the world differently' in the sense that they had begun to move in the direction of taking a stance towards "their own mental furniture" (Barnett, 1994: 174). Thus 're-placing myself' for some students appeared to proceed from the experience of 'placing myself in relation to my life-world'.

The notion of personal stance within this domain is defined in terms of the student valuing his/her own understanding and engaging deeply with what is being learned whilst simultaneously challenging the validity of his/her understanding and also what is being learned. Furthermore by having a clear and firmly based sense of self it is possible to act upon, rather than be subject to, events and thus transcend the world of both "corporate competence and academic competence" (Barnett, 1994: 178).

Pedagogical stance

The notion of Pedagogical stance was developed, in this study, in order to encapsulate within the overarching concept of Dimensions of Learner Experience, the way in which learners see themselves as learners. Students' pedagogical stances are constructed through a combination of their prior learning experiences, their often taken-for-granted notions of learning and teaching, and through the type of higher education which they receive. Higher education in the 1990s is being encouraged to shift curricula in the direction of enabling students to develop pedagogical stances which are both flexible and market related. In this study the institutional cultures in which students were learning appeared to have a large bearing on the extent to which this shift was occurring.

Pedagogical stance depicts the way in which students see themselves as learners in particular educational environments. The choices students make within a learning situation and the particular learner history which they bring to a learning environment all influence students' pedagogical stance. Pedagogical stance may be affected by past failure. For example surface approaches in learning (Marton and Säljö, 1976a; 1976b; 1984) or strategic approaches (Entwistle, 1987) may be adopted as the student sees this as the only means of ensuring a pass. Past failure may also result in students finding it difficult to attempt new and different ways of learning which may involve personal risk.

The concept of pedagogical stance acknowledges the relationship between the self and what is being learned. Therefore pedagogical stance, for some, encompasses the notion of "reflective knowing" whereby the student both embraces knowing but also queries it (Barnett, 1994: 180).

Pedagogical stances also change in relation to other issues in peoples' lives, such as opting for a 'safer' way of learning when struggles elsewhere demand energy or resolution, or desiring greater challenge and change in learning when other aspects of life are mundane. Furthermore the learner's self-perceived ability, and the conflicts or shared values students have with tutors in those learning situations, may also affect a student's pedagogical stance.

Pedagogical stance seems to be expressed through four domains:

Reproductive pedagogy

Reproductive pedagogy encapsulates the idea that students may revert to methods of learning that they have always used, despite the considerable difference they may have encountered between methods of learning experienced at school compared with those at university. For example students may have been taught didactically at school and thus adopted surface approaches to learning (Marton and Säljö, 1976a; 1976b), yet on encountering a form of PBL which demanded deep approaches to learning they still used surface approaches.

In reproductive pedagogy learning is characterised by students assimilating and reproducing information supplied by academics, on academics' terms. A tendency towards reproductive pedagogy may also occur because the nature of the curriculum reinforces surface approaches to learning. Alternatively reproductive pedagogy may be adopted by students who feel at risk in some way within the learning. These students choose to use methods of learning with which they feel familiar and which pose little challenge to their identity as learners, or their understandings of their life-world.

Pedagogical stance in this domain is therefore characterised by adopting methods of learning which maintain the status quo both for the student and in relation to the learning context.

Strategic pedagogy

Strategic pedagogy captures the notion that students adopt the perceptions of staff expectations of learning with the anticipation that it will be the most effective means of passing the course. Thus students buy into the academics' agendas and dominant perspectives and adapt their learning to that which they perceive is expected of them. Students in this category may use several different learning strategies, (which may include strategic approaches, Entwistle, 1981), but these are all within the remit of what is acceptable to the authorities and the student. Students see learning as being strategically linked to the world of work and adapting their learning will ensure that they are equipped with the necessary skills and knowledge for the work place. Thus strategic reasoning rather than critical reasoning is adopted by these students.

Here pedagogical stance is characterised by a form of cue-seeking (Miller and Parlett, 1974) through which students not only seek out cues in order to pass the assessment but also seek out cues from employers whilst on practice placements in order to discover which skills and knowledge will make them most employable.

Pedagogical autonomy

Students here adopt a position of learning which they perceive will offer them the greatest degree of autonomy. Students opt to learn in a way which suits them and which will offer them, as far as they are concerned, the most effective means of learning, meeting their own personally defined needs as learners yet also ensuring that they will pass the course.

The nature of autonomy in this sense stems from the notion that learning for these students does not have to fit entirely within the remit of that defined by authorities. What is important is that the means by which they learn is acceptable to themselves, and if what is on offer is not acceptable, it will be rejected in preference for something which is perceived to offer the desired autonomy. For example several students at Baslow chose to ignore the worksheets which staff expected them to use as the focus of the PBL days. Instead they used the PBL days for researching information they felt was key to their practice-based learning. For some students learning through PBL was the means by which they were enabled to reach this stance for the first time, for others the expectations that PBL would offer autonomy and in fact did not, challenged them to adopt the autonomous stance that they desired.

Pedagogical stance within this domain is thus seen as the ability of students to be independent in making decisions about what and how they learn.

Reflective pedagogy

Reflective pedagogy (similar to Barnett's 'reflective knowing', Barnett, 1994: 180), encompasses the notion that students see learning and epistemology as flexible entities. Students within this domain perceive that there are also other valid ways of seeing things besides their own perspective and they accept that all kinds of knowing can help them to 'know' the world better. Learning thus involves not only critically evaluating knowledge supplied by tutors, but also the values implicit within that knowledge. Additionally within the realm of reflective pedagogy students value and endorse learning they see and hear which has occurred in other life-worlds besides their own. Students in this domain seek to understand the life-world of others, those of peers and tutors, in order to learn from the experience of others and/or reflect upon the life-worlds of others. Through this learning and understanding they endeavour to evaluate themselves critically. Thus reflective pedagogy is a stance through which students see themselves and their learning as a reflexive project.

Pedagogical stance as viewed within this domain is characterised by evaluating critically personal knowledge and propositional knowledge on one's own terms, and thus the student both embraces knowledge and also queries it.

Interactional stance

Interactional stance is used here to capture the way in which a learner interacts with others within a learning situation. It refers to the relationships between students within groups, and staff-student relationships at both an individual, and a group level. Thus interactional stance encompasses the way in which students interpret the way they as individuals, and others with whom they learn, construct meaning in relation to one another. The way in which one student may theorise about another student within a group setting reflects his/her interactional stance as does the way in which students act and speak as they interact with one another. Interactional stance is also a notion which encompasses the means by which students engage with, and attribute meaning to, the processes which occur in groups. It is subsequently through reflection upon these processes that students make sense of their own learning.

Groups are often talked about in terms of a journey, a progression (Jaques, 1984) where there are seen to be stages in which groups move from a forming stage through to a time of unity and effectiveness before it adjourns. In fact in this study groups were less stable, less convergent and less collaborative than the literature relating to groups and group theory implied. Students could point to unease connected both with their role within the group, the relationship between their individual concerns (which for some stood in direct conflict with the collective ethos of the group), and the nature of support within the group. It was unease which was cyclical rather than sequential in nature. Dilemmas were also spoken of. These predominantly related to staff and students' concerns about particular issues which were felt might promote disabling experiences for students within the group, but which in many cases did in fact enhance learning. For example the lack of resources at one site prompted in students an unexpected creative use of themselves as resources.

Conflict, which sprung from differing expectations and agendas about both the nature of learning within the group and the roles of group members and facilitators, emerged as a key issue throughout the study. It was when describing conflicts within groups to which they belonged that students most often raised issues which could be said to reveal their interactional stance. For example students spoke of conflict between the role expected of them by others within groups and their own perception and expectation of themselves as a group member.

Despite the unease, dilemmas and conflict experienced, the majority of students valued working in groups. Students' later reflections as practitioners demonstrate a deepening appreciation of both what they had gained through working in groups and of their understanding of their own interactional stance. Across the four sites interactional stance seemed to be expressed in four distinctive domains:

The ethic of individualism

The 'ethic of individualism' was originally coined by Lukes (1973). The ethic of individualism in this study depicts the notion that some students saw learning within the group as an activity which was only valuable in terms of what each individual could gain from it. These students placed little value upon collective learning experiences and were more concerned that they would forfeit marks by expending effort sharing tasks and information within the group than if they worked alone. Students within this domain could often see the value of working and learning within groups because they would need skills in team work for their future profession. Despite this they opted for isolation and individualism because they saw this approach as enabling them to obtain a better qualification. Thus within this domain the individual places him/herself at the centre of the value system and relegates the group to second place. The group is only used as far as it will further the interests of the individual.

Interactional stance as captured within this domain is characterised by the individual placing him/herself at the centre of the value system. Learning within the group is an activity which is only valuable in terms of personal gain for the individual.

Validated knowing through 'real talk'

"Constructivists make a distinction between 'really talking' and what they consider to be didactic talk in which the speaker's intention is to hold forth rather than to share ideas . . . 'Really talking' requires careful listening; it implies a mutually shared agreement that together you are creating the optimum setting so that half-baked ideas can grow. 'Real talk' reaches deep into the experience of each participant; it also draws on the analytical abilities of each"

(Belenky *et al*, 1986: 144)

Validated knowing captures the idea that through the experience of being heard within a group, and being valued by other group members, individual students learn to value their own knowledge and experience. Within a group where each member is valued and the optimum setting is created for ideas to grow, individuals feel empowered through affirmation. Prior experiences of the individual are valued as a resource for learning by other group members. Simultaneously prior experiences begin to be valued, sometimes for the first time, by the individuals, and subsequently seen as a resource for further learning. Thus for students in this domain learning in groups is often accompanied by a boost of self esteem and confidence and, as a consequence, a renewed exploration and facilitation of individual learning aspirations.

Interactional stance is seen here as a position whereby students come to value their personal and propositional knowledge by recognising its value through the perspectives of others.

Connecting experience through interaction

A number of students spoke of the way in which learning and reflection within groups had enabled them to make sense of their own experience as learners. For example, through role play or discussion within a group, students were enabled to make sense of previous situations, experiences, or issues that they had not previously understood. Through interpretation of information about him/herself, and his/her experiences, obtained from other group members, the individual would learn to develop self-knowledge. Thus in this domain students use the group to *make sense* of their world *as it appears to be* and will use the group to resolve dilemmas and discover meaning in their lives.

Interactional stance here is characterised by the individual being facilitated by the group process in making sense, through reflection, of his/her own reality and in confronting dilemmas and problems within that reality.

Transactional dialogue: mediating different worlds

The term transactional dialogue was coined by Brookfield:

“We may think of adult education also as a transactional dialogue between participants who bring to the encounter experiences, attitudinal sets, differing ways of looking at their personal, professional, political and recreational worlds and a multitude of varying purposes, orientations and expectations”

(Brookfield, 1985a: 49)

Transactional dialogue is used here to capture the idea that the group serves as an interactive function for the individual. Through the group the individual is enabled to learn both through the experience of others and the appreciation of other peoples' life-worlds, and by reflecting upon these relate them to their own. Thus individual students by making themselves and their learning the focus of reflection and analysis within the group, are able to value alternative ways of knowing. Dialogue here is central to progress in peoples' lives and it is through dialogue that values are deconstructed and reconstructed, experiences relived and explored, in order to make sense of roles and relationships.

This domain is concerned with identity building through the group process. For example individuals within the transactional dialogue domain will use dialogue and argument as an organising principle in life so that through dialogue they will challenge assumptions, make decisions, rethink goals. Students will use the group process to challenge identity and all that is implicit within that identity.

Transitions in learning

PBL may foster transitions in students' learning from disjunction to integration, and *vice versa*. Students are offered through PBL opportunities to own their learning experiences and develop independence in inquiry, opportunities which may promote transitions in learning.

The nature of transitions

Transition is used here to denote shifts in learner experience caused by a challenge to the person's life-world. For example any transition may result in someone being able to make greater sense or less sense of their lives. Transitions do not necessarily promote development towards a higher level of existence. Rather students become critically aware of new learning needs which arise from the challenge to dimensions of their current learner experience. This awareness results in the adoption of a different domain which has different meanings from the previous one they have taken up. Transitions are not linear but recursive. They involve revisiting and redefining knowledge processes and experiences, rather than necessarily refining them, although the latter may also occur.

Transitions occur in particular areas of students' lives, at different times and in distinct ways. For example some students experience feelings of disjunction in their pedagogical stance whilst simultaneously experiencing a greater sense of integration in their interactional stance. Transitions are not always worthwhile experiences for students, and their impact will depend upon each individual student and circumstance. However what is common to all students is the move both towards and away from attaining an integrated sense of self, within different stances at different moments in time. The nature of transition which occurred in this study will be discussed further, and in relation to earlier research, (for example Perry, 1970; Mezirow, 1981; Taylor, 1986; Jarvis, 1987; Weil, 1989) in the context of Chapters 9 and 10.

Prompting transition

Transitions often seemed to be prompted by some form of disjunction. Disjunction is a concept seen by many as a starting point for learning (Jarvis, 1987; Weil, 1989). In this study disjunction is used to refer to a sense of fragmentation of part of, or all of the self. It is characterised by frustration and confusion, and a loss of sense of self which often results in anger, frustration and the need for right answers. Shifts away from disjunction always seemed to be related to students experiencing a greater sense of integration. Integration sometimes appeared to be characterised by students' whole self being in equilibrium. More often it was described as a particular component of the self being in balance. Thus integration was experienced in very distinct ways by different students.

Shifts away from integration resulted in a student being in a position where their previous way of seeing the world held less or little meaning in their current situation. The way in which disjunction and integration are used in this study reflect the research in this field (Jarvis, 1987; Weil, 1989; and also Mezirow, 1981 whose concept of 'disorientating dilemmas' is very similar to the concept of disjunction cited in the literature). However this study also takes this concept a step further by exploring forms of enabling and disabling disjunction in relation to the three different stances. For example one student experienced fragmentation within her personal stance because of the disjunction she encountered in managing multiple and conflicting roles. The disjunction was enabling because of the way in which it enabled her, despite the sense of fragmentation, to see that she was managing the uncertainty connected with role conflicts. Whereas within her pedagogical stance she was feeling trapped in reproductive pedagogy because of the way in which staff expectations about student learning stood in direct contrast to her own expectations of learning through PBL. Thus this disjunction was disabling.

Different stances, different transitions?

Across the data transitions occurred from disjunction to integration and *vice versa*, yet there did not appear to be any patterns which related to differing types of transitions within different stances. It seemed that transitions were individual, and related to learner history, current circumstances and life-world.

Promoting transition

Across the sites there were particular issues which facilitated students' transitions in learning and others which did not. Although the type of disjunction differed for individual students, there were some general trends across the four sites. The institutional culture and the relationship between PBL and other components of the curriculum affected the extent to which disabling disjunction was experienced. For example, PBL did not appear to fit and work well in 'traditional' institutions which were set up for lecture-based learning, since the environment and, in some faculties, the attitudes of staff caused a barrier to its acceptance. Thus there appeared to be a greater potential for disabling disjunction to occur within students' pedagogical stances for those experiencing PBL as a component of a traditional programme. A further issue which affected the nature of disjunction was the type of power and control the various professions imposed upon the course content and the nature of the learning experience. In this study PBL was being used in curricula where students were studying for a profession. Professional agendas were thus a feature of the curricula. The degree to which these agendas prevailed within curricula depended upon such issues as professional culture, the nature of professional knowledge and the relationships between academics and practitioners.

The amount of control held by the professional body and the extent to which it exerted this control over both what was included within the curriculum, and the way in which the curriculum was delivered, was also an issue.

Other issues, which promoted enabling or disabling disjunction which were common to all the curricula, were the values held by staff responsible for the PBL programmes and the way in which these values affected the delivery and assessment of the course. For example staff teaching within the same curriculum had differing interpretations of PBL. Tutors at Lembedt illustrate this point. Some were training students in a mechanical practice of problem-solving whilst a few were encouraging students to develop deep approaches to learning and creative thinking. Additionally, although tutors across the sites espoused the need for students to understand material and develop deep approaches to learning, the need for professional accountability often resulted in assessment methods being used which ran counter to this, which was disabling for many students.

One of the critical influences upon Dimensions of Learner Experience were the espoused intentions of lecturers. The differing ways these intentions were played out seemed to affect the nature of disjunction and integration that learners experienced. For example although staff may have espoused student autonomy in learning, their theories-in-use belied this. Thus some students might adopt strategic pedagogy in order to maximise the possibility of passing the course.

Although staff themselves did appear to make transitions within their own stances data which emerged from this research focus primarily on the shifts taking place for students.

Summary

Although Dimensions of Learner Experience emerged from a study which sought to examine the expectations of people involved in programmes which implemented PBL, they relate to wider fields. Learner stances (personal stance, pedagogical stance and interactional stance) are all trajectories of educational development which emerged from these data possibly because these particular stances arise more readily in courses which use PBL, compared with those which do not. Although issues such as this will be discussed in depth within Chapter 9, it is perhaps pertinent to note at this point that these three stances have a general application. For example the study of learning from the learners' perspective has received increasing attention over the last two decades (Perry, 1970; Entwistle and Ramsden, 1983; Taylor, 1986). This study adds not only to this body of literature but also to the literature concerning educational programmes which promote self-direction (Boud, 1988a).

The continuing debates about the nature and process of adult education comprise a minefield of overlapping concepts, with few clear frameworks for understanding the relationship between the context and the experience of the learner. Many within the field of adult education see learning as necessarily progressive and positively developmental (Perry, 1970; Knowles, 1978; Belenky *et al*, 1986), cyclical, (Kolb and Fry, 1975) or with disjunction *always* being the starting point for learning (Mezirow, 1981; Taylor, 1986; Jarvis, 1987; Weil, 1989). This model challenges a number of these assumptions, arguing that transitions may not always be progressive or worthwhile, that there are differing forms of disjunction which affect the nature of transitions and that one domain within a stance is not necessarily preferable to another.

In the context of this study I have developed a particular story which documents the way in which PBL appears to promote a wide range of transitions within the framework of Dimensions of Learner Experience. For example different circumstances seemed to give rise to different kinds of movement at differing times in students' lives. These can be mapped in the form of a cube (Figure 2) which exemplifies the differing trajectories, which will be explored and elaborated upon in Chapter 9. Firstly, however, I will seek to present these concepts in the context of the data.

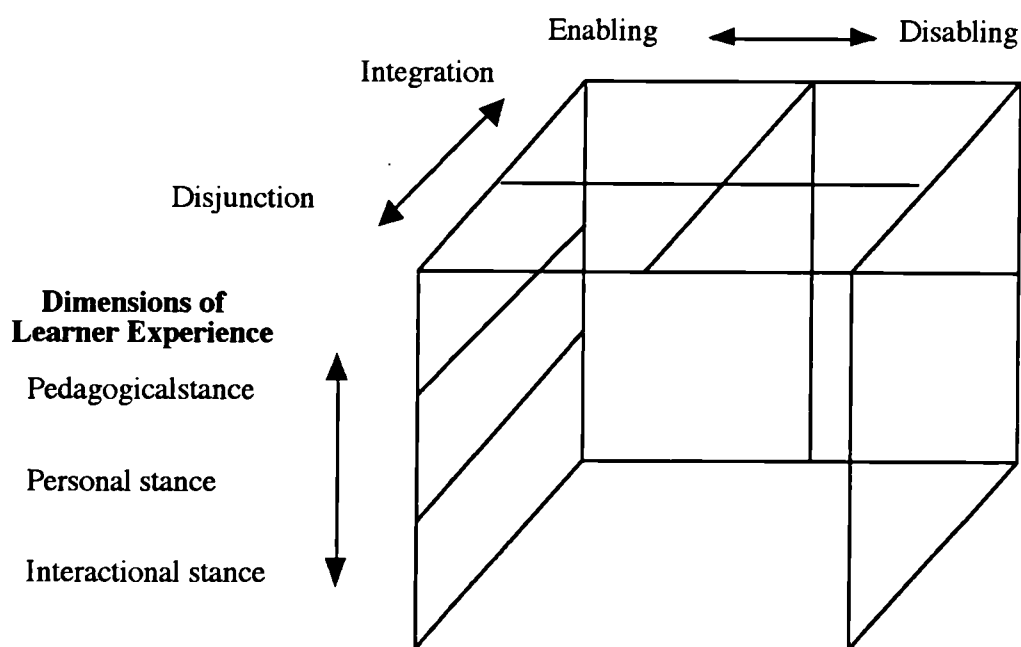


Figure 2. Dimensions of Learner Experience

Chapter 6.
Dimension 1 Personal stance

Introduction

This chapter will explore the differing domains within personal stance. The particular characteristics of this stance will be demonstrated by exemplification with quotations from students. The key domains within personal stance are 'fragmentation', 'discovering my self', 'defining my future self', 'placing myself in relation to my 'life-world', and 're-placing myself: knowing the world differently'. These key concepts will provide the structure of the chapter.

In this study personal stance is used to depict the way in which participants see themselves in relation to the learning context and give their own distinctive meaning to their experience of that context. Personal stance encompasses the means by which they discover, define and place themselves within the PBL environment and express the interplay between what they bring to, and take from, their learning experiences. The ways in which people speak about themselves, view their profession, their peers, the facilitator and the institution are in this study explored within the conceptual framework of personal stance.

Fragmentation

Fragmentation is a domain in which core aspects of students' values and beliefs felt at risk or were threatened through uncertainty. Learning through PBL may challenge students' current sense of self, and their way of both seeing the world and acting within it. This is because of the way in which PBL encourages students to assemble their own body of knowledge, and formulate their own decisions about what constitutes relevant learning.

Fragmentation in this study was characterised by a conflict between students' expectations of, and their encounter with, the learning context that contrasted sharply with prior learning experiences. For some students fragmentation may be seen as a positive challenge which brings with it the opportunity for personal growth and development. For others fragmentation may be a negative experience in which their understanding of themselves and the way in which they learn becomes undermined. A critical difference between positive and negative fragmentation seemed to be related to student identity/self-esteem. For a number of students across the sites negative fragmentation arose out of poor self-esteem which resulted in fear and anger in the face of uncertainty. Whereas for one student, Clare, positive fragmentation arose out of a strong self-confidence in being able to manage uncertainty.

When experiencing negative fragmentation students spoke of themselves either in a derogatory way or by describing what they felt was missing from their learning experience often by attributing blame (for not being able to learn effectively through PBL) elsewhere, usually towards the tutor. What was missing often seemed to be connected with what they felt was missing from themselves, rather than necessarily from the learning experience.

There were two key ways in which this negative fragmentation manifested itself. Firstly, students who did not feel able to take responsibility for their own learning blamed the tutors for this inability. Secondly there were students who *were* able to learn for themselves through PBL, yet who disliked and objected to the demands of independent inquiry which brought with it a responsibility not required in previous experiences of learning.

The tendency to blame is well illustrated by Sally who was at Baslow. Sally's belief that her learning was someone else's responsibility stemmed from her uncompromising experiences in life: brought up in a Catholic family Sally believed that there were clear guidelines and right answers. Her low self esteem - she described herself as being "not particularly intelligent", had emerged from her position in the family as one of the few who had not achieved high grades at A' level. This meant that she not only wanted to be told what to learn but also needed to be affirmed in the choices she had made:

"You need to know, are you doing the right thing? Are you doing the wrong thing? You don't know if you've never come across it before what is right and what is wrong, do you? What is the right way to go about something and what is the wrong way? And you might be doing it all wrong but because nobody's said any different to you, you go through with the feeling you're doing it right"

Sally expected not only that the tutors would provide her with the knowledge and skills that she needed to become a nurse, but that they would also show her how to make connections between herself and the learning. On clinical practice she received clear instructions about the right way to undertake tasks, in lectures she was given a body of knowledge, but during PBL days she was expected to take responsibility for her own learning. Sally experienced negative fragmentation because of the way in which the assumptions implicit in learning through PBL jarred with her assumptions about learning. This was in terms of both her prior learning experiences and learning which had occurred in other areas of the curriculum which were not problem-based. Thus her sense of fragmentation stemmed not only from internal conflict but also through the contradictions between differing understandings of learning that she experienced at Baslow.

Of the students who disliked and objected to the responsibility expected of them when learning through PBL, George, a non graduate mature student at Stanage, captured the essence of this struggle. George's experience of didactic methods at school gave him an expectation that tutors at university would supply more information and guidance than they in fact did. It was this disjunction between his expectations and his experience which resulted in a sense of fragmentation. George was able to identify what it was that he needed to learn, which Sally could not, but he was confused about how to place himself in relation to the material to be learned, and the profession for which he was training.

George argued that in training for a profession it was both unfair and unsafe for tutors to rely upon him to understand the material correctly. Tutors, he felt, were responsible for not only ensuring that he had acquired and understood the material but also that he would become a safe, responsible practitioner. George could not separate the process of learning from personal development and his future career, he saw them as integrated and inexplicably linked:

"You just sort of say, "This just doesn't seem fair, the way we're expected to, if we want to know it, go out and find it, it doesn't seem a fair way to learn." And it doesn't seem very safe, I think its a real risk in qualifying people who are basically going to be helping people for the rest of their working life. And it seems an awful risk to just, "If you want to go out and get it, and if you're not fussed, don't bother."

Because of George's sense that social work meant much more than just learning knowledge, he was concerned to emphasise the ethical principles he felt were involved in allowing students the choice about what and how they learned. Thus in training for a profession learning and sound practice was an ethical concern for which tutors should be responsible.

The issue of responsibility was also spoken of by students at Gimmer and Baslow, where students were predominantly taught through didactic methods and in general were not used to taking responsibility for their own learning.

Fragmentation was also being experienced in relation to the conflict which emerged between students' expectations and experiences of the course, and was particularly distinct at Baslow. Here, PBL was a fragmented component of the course which was merely added to a predominantly didactic curriculum. The very presence of PBL created dissonance by challenging the professional norms of nursing, not only within the curriculum and students' lives, but also within the wider context of the local nursing community.

In contrast Clare, a student at Stanage, captures the experience of fragmentation in a different way. She was an English graduate who had worked on a variety of projects for eight years which involved resettling people into the community and through this had experienced, at first hand, other people's uncertainty in their lives. Clare was the only student in the study who described fragmentation in terms of a positive experience. For Clare this lay in the need to embrace the notion of uncertainty when undertaking a process-centred method of learning. Clare's personal stance related to her identity as a probation officer: her prior experience had been both valued and incorporated into the course resulting in personal growth so that, as a future probation officer, she believed she would be more self-aware than when she had arrived on the course.

Simultaneously she felt overwhelmed by the skills and knowledge areas she was "trying to get to grips with" yet felt confident that everything would cohere. She was content to live with the uncertainty because she felt that it would not be until she finished the course that everything would start to make sense. Unlike the other students in this domain, Clare did not have a low self-esteem and in order to live with this sense of fragmentation she had, to some extent, to rely on her own resources. Clare had a deep sense of *knowing*, a sense of understanding that she was the orchestrator of meaning, which enabled her to believe in uncertainty as something which was necessary for the emergence of integration at some stage in the future.

Discovering my self

A number of students spoke of the way in which PBL had offered them a learning situation in which they had felt able to promote their own development. Thus personal stance was defined in terms of self-discovery. Although this was the case for a number of students at each site, there was a predominance of students speaking in this way at Lember. This may have been because at Lember students saw the staff as being there to help them to learn through the fostering of independent inquiry and encouraging critical reflection, in a way which was by no means as strong at other sites. There was more of a feeling at Lember that staff were interested in students' lives, in terms of staff being interested in students' concerns and the way in which students learned, whereas at Baslow, Gimmer and Stanage students tended to conceive of staff-student dynamics in terms of an 'us and them' relationship.

Six students seemed to capture the different ways in which distinct forms of self-validation were the means by which self-discovery occurred, and were for many the beginnings of the journey towards an understanding of their own unique personal stance. One student however experienced self-discovery through encountering conflict between his own values and those he felt were implicit within the course. The existence and nature of support available on the course, from staff or students, appeared to be key to the extent to which self-discovery was experienced as positive or negative.

Several students spoke about self-validation occurring through support from others, often peers, sometimes staff, periodically both. Jack's perspective demonstrates the way in which a number of students experienced support, and subsequently self-validation through questioning. Jack, now at Lember, had been an apprentice for four years after leaving school at 16. He did an Ordinary National Certificate (ONC) in mechanical engineering and worked his way up from fitter to manager. He chose to undertake the Automotive Design Engineering (ADE) course because his hobby was tinkering with cars and he wanted to integrate his interest with skill and knowledge of engineering. Coming straight from industry into this course Jack could immediately relate to the way in which the material was taught because he was expected to solve design problems. Jack experienced support from staff who asked for his opinions and advice whilst simultaneously encouraging him to question and explore issues for himself.

Jack's previous experience of learning on a didactic ONC course had silenced him into thinking that his prior experience was not of value and his experience of learning on that course felt meaningless compared with that at Lember. Jack reflected upon how his view of learning had changed through being able to question:

“ One of the other things we’ve been taught to do is never be frightened to ask a question no matter how stupid it is. That’s one of the things they always keep saying to us “Just ask, don’t be worried about making a fool of yourself.” Because so often people just sit there and pretend they understand because they feel they ought to and then afterwards try and find out whereas in this course we are encouraged more to ask no matter how stupid the questions are . . . but of course when you’re in industry you spend all your time asking people so you’ve got to learn, you know, you’ve got everything to learn. So this sort of teaches you to do that, to ask.”

Jack’s view reflected the essence of the way in which many students discovered that learning was not just about receiving information, it was about taking responsibility for their own learning in a way which was unique to each individual. Jack now saw learning as a means of understanding both himself, and content and process, in relation to the world around him. Being encouraged to question appeared to promote in students two different forms of self-validation which fostered self-development. Firstly, by being encouraged to ask questions, students felt that their own values and concerns were being included by tutors within the learning process. Secondly, because their concerns were being valued by tutors, students felt valued as people in a way which had not existed in other learning experiences. For example, William at Lambert and Nicola at Stanage spoke of their personal stance in terms of a self-discovery which came through being valued not just for the knowledge and abilities they possessed, but for who they were as people.

William’s perception of himself as a low achiever (having not obtained the A’ level grades he had expected) resulted in him feeling he had little to offer others in his year, particularly since he had subsequently struggled in the first year of the traditional mechanical engineering degree. Yet through the AMD course William began to develop confidence in himself. He talked about how the combination of being in the studio, an environment in which he felt he belonged and a place where he had been enabled to learn, was also a place where he was accepted for himself:

“I think one of the noticeable differences has been on the course is that we’re always in the same room which means you bring your rubbish in and you’ve always got your own rubbish at your own desk and that’s it”

Metaphorically William talked of rubbish as what he brought to the course. He had been sitting with his rubbish at his desk and staff and students worked with him at his desk to enable him to deal with his lack of confidence and his spoiled identity. Support from others enabled him to value prior experiences he had not previously seen as being valuable, either to himself or to anyone else.

Although Nicola's experience was similar to William, in that it entailed the nurturing of confidence, her experience also mirrored those of a number of students who, through support, were enabled both to perceive and to develop a greater sense of their own potential. Nicola was an English and Drama graduate who had worked in a children's home for four years before coming to Stanage and described herself as someone who had not got very strong opinions. She believed that through PBL her values had been challenged and changed. Nicola talked about her transition from a caterpillar to a butterfly, as a process of metamorphosis.

Change seemed to have occurred not because Nicola was lacking opinions and values but because previously she felt she had little confidence or knowledge in substantiating them.

"I think this course has enabled me to form some opinions about things. Things that are very fundamental really . . . We had this discussion today about disability and access, and if it's not something you've ever really thought about, when you start to think about it, it's absolutely ridiculous that people can't get into shops or get on a bus. And this building is appalling, appallingly inaccessible. So it's right to have strong opinions. But it's not just - they haven't come out of nowhere, they've had to have evolved because I've had to learn about it. And I think it's to do with really, really having to look at things, you know, and to be able to back up your opinions, substantiate them."

Nicola believed that being challenged to discover and reflect upon issues had enabled her to develop her own opinions for herself and to learn to express herself, and had ultimately led her to explore her own personal stance.

Unlike other students in the study, Graham was someone who, despite valuing PBL for the opportunity it offered to be autonomous, paradoxically was unable to value his own learning to the same extent as he valued that demanded by tutors. Graham was a school leaver who, due to poor A' level results, was grateful to obtain a place at Baslow through the clearing system. Although at times he had found PBL a confusing way of learning, -which he largely attributed to staffs' own bewilderment about the way in which it should be implemented- he found that the PBL days "became like the icing on the cake, a way of cementing what I'd learnt on the wards together". Graham believed that PBL had enabled him to discover and develop his own personal stance but had chosen to compromise his values in deference to those of staff. He found work that he wanted to do easier to undertake than that ordained by tutors. Work he had chosen to do fitted in with his own needs and desires, whereas that given by tutors rarely initially fitted with his own motivation to learn.

Graham attributed the difference in his view of work for himself compared with that set by tutors, as being due to his own laziness rather to the fact that personal meaning in learning was of value to him. He explained:

“Work for myself I find easier, it’s more enjoyable cos work for yourself truly interests you so it increases enjoyment. But then I find work for the course more challenging, which I enjoy once I get into it. But work for myself is definitely easier . . . I don’t know perhaps I’ve got lower standards but you haven’t got to have such rigid strong standards because it’s for your own gain, so if you don’t properly do it you don’t lose so much, you just waste some of your time but you don’t lose so much as if you don’t do an essay because then you lose the grades, your grade average goes down and you waste even more time . . . resubmitting it”

He attributed work for himself as being easier because he had lower standards, rather than acknowledging that it was easier because he was making connections with knowledge and issues which personally mattered. In devaluing his self-discovery -the discovery that learning for himself was more enjoyable- Graham’s personal stance was depicted by both a notion (defined by experts) that it was important to achieve good grades, and a tacit knowing that what he valued was ‘the icing on the cake’.

Defining my future self

Students can also position themselves in the learning context in terms of their view of themselves as future professionals. Several students sought to understand themselves and the learning they were undertaking in terms of a perceived future role. They spoke about themselves in terms of the relationship between their current self and their perceived future self. Thus several students classified their personal stance in terms of “being a good engineer”, “thinking like a designer” “more of a student than a nurse”. Consequently many defined themselves in relation to work qualities to which they aspired or with which they did not wish to be associated.

Men’s voices predominate in relation to this theme in the data, but Janet and Fiona did speak of the confusion they experienced in defining themselves within what they perceived to be the ‘expected’ role of a nurse. They thus defined their personal stance in terms of their present roles as students, something which for them stood in direct opposition to their perception of their future roles as nurses.

Janet, who having experienced failure at O’ level, attended a sixth form college to retake them and to subsequently undertake A’ levels, was used to making decisions about what and how she learned. Sixth form college had enabled her to develop an autonomy not possible at school. But at Baslow she encountered attitudes and values both on campus and in practice which mimicked her school days and which she saw as barriers to autonomy.

She believed that as a student training to be a nurse she was caught between two roles. As a student nurse at university the clinical practice component and the extra weeks which she was required to undertake to fulfil the hours prescribed by the ENB meant that she did not fit into the normal student pattern of semesters and vacations. Furthermore doing shift work during clinical practice placements meant she was unable to attend university activities. As a nurse she was not undertaking the traditional unquestioning apprenticeship model of learning, and was required to return to university one day a week during clinical practice weeks to question and reflect upon practice.

The freedom in the PBL days offered Janet the autonomy and challenge she had enjoyed at sixth form college, and it was this which was the catalyst which prompted her to define herself as a student rather than a nurse. For Janet being a student encapsulated the notion of autonomy (freedom to think and to learn independently) and exploration. This contrasted sharply with the expected obedience and conformity to professional norms she experienced on placement, despite the fact that apart from the oasis of autonomy in the PBL days, the course was didactic and tightly structured.

Fiona, a school leaver who had opted to do a degree in nursing because of the advantages she believed it brought, both in terms of kudos in her future career and the freedom of university life, captures here the way in which the conflict between the two roles was seen in parallel during the PBL days:

“It was like a free-er day, you could actually do things that you wanted to do, look into things you wanted to, rather than conform to - mind you a lot of us feel more students than we do nurses and interact with other people on other courses and have a more laid back happy go-lucky attitude. Whereas other people on the course are really kind of linked to nursing and that’s it . . . I feel more of a student than I do a nurse”.

Janet and Fiona defined their personal stance in relation to two opposing stances operating on two seemingly opposing levels: autonomy, symbolised by ‘being a student’ and obedience depicted as ‘being a nurse’. These women, despite defining themselves in terms of autonomy, found it impossible to integrate the position of being a nurse with being autonomous.

Unlike the women, the men were clear about their role as future professionals, and PBL had been a means of enhancing their understanding of these roles.

Bill and Ben at Lemberth and Luke at Gimmer, defined themselves as “being engineers”. They spoke of their personal stance in terms of a making sense, of an understanding which emerged out of a personal interest in the subject. Their experience of an inner resonance with the material being learned emerged from their perception that what was being learned related directly to their professional lives. All three of these students had already experienced feelings of dissonance in learning through lecture-based components of the degrees at Gimmer and Lemberth, where they had felt estranged from the material which was being taught because they could not see how it would enable them to be engineers.

Through PBL these men, and many others in the study, began to connect what they were learning with their perceptions of themselves as engineers. The meaning of being an engineer was conveyed as being actively engaged with what was being learned: having a practical understanding, applying knowledge, using information, rather than being the passive recipient who was “learning parrot fashion” or who could “regurgitate information (*in response to an exam paper*) looking out of the window”. Although they defined themselves as engineers, it was not until they undertook PBL that they began to realise the specific characteristics of being an engineer which they valued. Their experiences of didactic teaching had simply made explicit what it was they did not want to be. Bill captures the sense of resonance which he, Luke and Ben experienced through PBL.

Bill was a school leaver who had wanted to go to a university with more kudos than Lumbert but who did not get the high grade A' levels he required. Five ring binders full of information which he neither remembered nor understood symbolised his first year of the mechanical engineering degree programme which he was obliged to undertake before the more appealing applied AMD course. Initially he was concerned about the academic status of the AMD course because his house mate had continued on the traditional mechanical engineering degree and appeared to be doing considerably more work:

"I thought maybe, because I was not having as much basic grounding in basic engineering like the other lot were doing, and we started doing suspension analysis and it was a bit worrying at the start cos they said 'oh we've done that' but then further on through the year I realised that they didn't know what they were doing."

"Totally capable engineer" conveys the sense of integration which Bill thought he would achieve by acquiring a considerable body of knowledge. What in fact had equipped him was being enabled to engage with the material in a way in which he could utilise it, and being affirmed in his tacit realisation that lecture-based courses held little real meaning for anyone.

No students at Stanage defined themselves in terms of their professional identity. Students' notion of personal stance related more to their sense of the relationship between their life-world (as discussed in the subsequent domain) and what was being learned, than to their perception of themselves as social workers. There also seemed to be a covert understanding that to speak of oneself as a social worker was in some way to negate oneself. For example several students spoke of choosing not to reveal their profession at social gatherings and encounters because they felt that to do so would result in the immediate devaluation of themselves by others.

Placing myself in relation to my 'life-world'

For a third of the students in the study personal stance captured an ability through PBL to both discover and give meaning to their 'life-world'. PBL challenged students to confront the relationship between their previous experiences of their life-world and their new experiences (emerging from interaction with the objective world). This could lead to new understandings of their own reality. Thus students might speak of inner resonance between their life-world and what was being learned. Themes emerged about the way in which students placed themselves in relation to their life-world. At Lember and Stanage students spoke of the way in which the valuing of their prior experience had facilitated their learning, this was also so at Gimmer and Baslow but to a lesser degree.

Two themes emerged about the way in which students placed themselves in relation to their life-world. Firstly, students spoke of being able to engage effectively with what was being learned. This engagement occurred through a heightened awareness of the relationship between students' prior experience and the material. Jenny and Jackie illustrate two differing ways in which this manifestation was played out. Jenny's sense of engagement emerged through the contrast between the didactic modules and the PBL module at Gimmer. Jenny, one of the two women doing the vibrations module, had spent a year in industry after A' levels, before coming to Gimmer. Her view of learning was that it comprised rote memorisation when she had been undertaking lecture-based modules. This perception changed through PBL when she realised that learning was about understanding the material and using her prior knowledge and experience. During the PBL module she had been expected to use the experience of researching information and using critical analysis which she had developed in industry. She explained the value she now placed on learning which required understanding:

"If you want to do well in an exam here then you look at all the past papers, learn all the questions that are going to come up because they come up every year, you learn a few methods and you can do it. I don't really like that, it seems to me like cheating. I don't like learning things. I would rather have the understanding approach. If I don't understand something I can't learn."

Because of Jenny's sense that learning meant more than just passing exams, she was concerned to develop towards the same sense of engagement with her learning at Gimmer that she had previously experienced in industry. Drawing on her own resources and using her judgement and initiative, which had been fostered in the PBL module, was the foundation for the 'real' learning Jenny believed in, and through which she was able to place herself in the learning context.

Jackie was a social sciences graduate who had begun working in residential social work and then spent twelve years working for an educational charity running scholarship programmes for African refugee students, before deciding to train as a social worker. She described herself as someone who had got enough academic ability to pass the course; the challenges for her were more around her personal growth. For example she felt that PBL would challenge her to improve her insight into the ways in which past experience had affected her attitudes and behaviour. Learning for Jackie was not about “grafting external knowledge” onto herself, it was about integrating her past and present experiences in order to increase her future personal effectiveness.

Her sense of engagement differed from Jenny’s. Whilst Jenny’s sense of engagement emerged through PBL, which promoted both a means of valuing and integrating her prior experience; Jackie felt that engagement occurred through being made aware of what was lacking. Jackie described the gaps uncovered by learning through PBL as “areas of her life which needed attention”. She expanded this by arguing that she was not good at setting aims and objectives and that she felt she needed to be able to do this for herself now, in order to both establish the learning baseline from which she was starting, and to plan her progress. Furthermore she would also need this skill in her future job as a social worker.

Effective engagement demanded decisions from Jackie about how she would place herself in relation to what was being learned. Reflection played a key part in this since, in order to move towards greater personal effectiveness she felt she needed to reflect upon her own development, value it, accept that it was valued by others and communicate her own perspective on life through the way in which she placed herself in the learning context.

Secondly, Olive and Douglas were two students who spoke of placing themselves in terms of a shift in perspective. Evaluation of the relationship between their life-world and what was being learned prompted a shift *towards* ‘knowing the world differently’. Olive and Douglas were two students who spoke of their personal stance in terms of personal empowerment which occurred through a change in perspective. This had resulted in their beginning to know the world differently.

For Olive this emerged through key events which challenged her past and current roles, whilst for Douglas personal empowerment occurred through a new perspective of, and a changed relationship with, tutors. Olive described herself as having no academic background and, being reluctant to undertake a course with exams, the Diploma in social work at Stanage had appealed to her. She had been working as a volunteer for the probation service and this prompted her to train as a probation officer.

Olive pointed to reflecting on her role as a parent as being something through which she was challenged:

“Because I’ve got 3 kids, it’s actually brought up quite a lot of stuff about socialising children and what is right, you know, what you should do as a parent, specially doing the child protection and now we’re doing adolescence. And it’s actually been more reassuring rather than threatening. Sort of part of it has been a review of how I did, and having a look at my own practice of child rearing, which has brought up quite a lot of painful stuff, but its also been quite reassuring as well, it’s not been totally throwing, and I tend to use that from time to time, you know. Part of it is about getting rid of stuff and moving on, and it’s about acquiring skills as well. I am in the process of acquiring skills, I’m not there. And an awareness that there are things I do want to be acquired.”

Through PBL Olive had developed a new understanding of her own reality and had begun to shift towards understanding the way in which other worlds beside her own had been damaged by political systems, government policy and social issues such as poverty and lack of education. So besides reviewing her own history, she also saw the need to review that of others she would be working with in the future. Placing herself was not just about engaging with what was being learned and making sense of it in the context of her life and the world in which she had chosen to work, it was about seeing the world in a different way and learning for social change.

Douglas came to Lemberg after his A’ levels to take the mechanical engineering course. When the option to undertake AMD became available he chose to transfer to it because he was “brought up on motor bikes” and was interested in cars. In the first year of the mechanical engineering course Douglas had found lecturers unapproachable and inaccessible, so much so that if lecturers had offered assistance students were given the impression that they were only offering it begrudgingly. On the AMD course he found lecturers were pleased to offer help and Douglas believed that they wanted the process of learning to be a shared experience. The personal dimension that Douglas experienced in his interaction with staff on the AMD course promoted personal empowerment because he appeared to feel that staff both shared some of his views and concerns about the world, and could facilitate links between the way in which he saw the world and the material being learned:

“You might have to design a component but you have to look at its effect on its surrounding components and the effect of all those components on the environment in which it exists . . . I just don’t like to see things in such a narrow view I prefer to have bigger view of how the consequence of what you’re going to do are, because I think its a major downfall of engineering . . . they tend to do things and think of the consequences afterwards, you can see that from everything around . . . I think that’s one of the things they’re trying to teach through the course, just to look at the consequences of your actions and the fact that you’ll be liable for them in years to come.”

For Douglas, what he termed “having a bigger view” was an essential foundation for cultivating greater personal awareness. He believed he had been enabled to develop this because staff shared his values about creating structures which were not only stable and secure but also aesthetically pleasing, and were personally involved in the learning process. Beginning to know the world differently for Douglas was acknowledging the social responsibility he would have as an engineer and the possibilities he would encounter for effecting change.

There were three students, Chris at Gimmer and Rob and Sophy at Stanage who described their personal stance in terms of negative experiences on the course. These were students who placed themselves by opposing and challenging the contradictions they saw. These contradictions were spoken of in different ways by each of these students.

Chris was a school leaver whose experience of working in industry during his summer holidays had given him a practical understanding of engineering problems. He had hoped the PBL module would allow him to think and explore in a way he had been unable to during the lecture-based components of the degree, where he felt bored and constrained by having to learn in a mechanistic way. For Chris, the meaning of learning in a problem-based way lay in its capacity to facilitate students’ independence in thinking, yet he believed that his perception of PBL stood in stark contrast to that of the tutor:

“You are told to go along to (PBL) tutorials and basically you’re told in those tutorials what they think you should be doing to get the problem solved. I mean you can’t get anywhere without a little bit of guidance . . . but it does seem to me the big drawback to this is you being told what you should do and that if you come up with any answers that’s not what they’ve got then its wrong. And I don’t feel engineering’s about that, engineering is an open-ended question.”

Like Douglas, Chris wanted to cultivate a greater personal awareness and a deeper sense of exploration and engagement with what was being learned. But unlike Douglas he found tutors’ attitudes limited his opportunities to become personally involved and prevented him from using the resources he possessed. Chris argued against this, he believed that his own perspective was relevant and felt angry that tutors saw themselves as having the right to delineate knowledge. Chris defined his personal stance in terms of his quest for his own knowledge, a stance which he believed was in direct opposition to that of the tutors.

Influences such as assessment, group work and power relationships between staff and students were issues through which Rob believed the potential of his own learning experience was diminished. Rob was an English graduate who had then worked as a residential worker before deciding to train to be a qualified social worker. He argued that there was a credibility gap between the theoretical model of PBL, which was presented to the students in the initial stages of the course, the role tutors played within that theoretical model, and the realities of their practice as tutors, facilitators and possibly even as social workers. Rob believed that even though tutors spoke of wanting to devolve power to the students, that in practice they were either not prepared to or not capable of doing so. He explained:

“to my mind it feels there is an element of hanging on to power because to devolve it to the students is like we’re bating them kind of. It’s a bit like residential workers saying to kids “Who are you to know?”. The chances are they know very well how it feels like and what they need to grow and develop and move on . . . The academic staff have certain things they need to ensure happen, but there feels to me as a student an assumption “we know and they don’t” what is best for us and that’s the bit that makes me feel - I sometimes wonder whether we are mature students or not. I’m 36 years of age, I’ve been working in the social work field for ten years, I feel like I’ve some experience and some knowledge and yet that doesn’t feel valued in terms of how I use it here or any changes that’re made. It’s almost as if I have no voice in that”

Not feeling valued and not being heard on a course which he initially believed promoted collaboration and valued prior experience was a huge contradiction. Rob challenged this contradiction. Learning for Rob was seen as an area of commonality where staff-student and student-student relationships were central to an individual’s personal stance. His ability to ground his learning in the context of his lived experience and to know the world differently was dependent upon the personal stances of the staff and students with whom he worked and learned.

Sophy too spoke of issues in which her personal stance was affected, but by other members of the group. Sophy graduated with a combined degree in history, psychology and drama, and subsequently worked with people moving from mental health units into the community, young offenders and with people with learning difficulties and challenging behaviour. Sophy described an incident where she felt that her own and other students’ abilities to develop within the group was disabled by the need to be seen to be politically correct:

“ I think on this course, there’s definitely a feeling that you cannot be discriminatory in anyway which is good. But it also doesn’t allow people to explore their prejudices. It did for a little bit, we had a session where we could explore our own prejudices, but it does clam people up, especially in a group, and someone comes out with a very sexist remark. Everyone pounces on them basically, it’s like “Oh where does that come from, oh is that what you’ve been thinking all the time, you shouldn’t be saying that, it’s discrimination”. So in that sense it might stop the learning, if you pounce on people, because they just clam up and they won’t explore why they think that.”

Thus although PBL is a method of learning which for some enables and promotes an exploration of the way in which past experiences may diminish personal effectiveness, peer pressure within small group work may reinforce conformity to political norms instead of allowing for personal reflection and exploration.

Sophy had come to Stanage from an area of the country which she described as particularly sexist and racist, yet she was unable to explore her own concerns because other members of the group were afraid to face up to their own biases and prejudices. Sophy had made tentative steps in her own personal development to explore issues which she felt were key to her personal growth, but was disempowered by other group members who were reliant on others for personal affirmation. Through challenging contradictions she saw within the group, Sophy was able to place herself in opposition to them which, although resulting in pain and struggle, ultimately resulted in the integration of new learning with a deeper level of understanding.

Sophy’s experience would seem to indicate that PBL may offer new opportunities for being in the world and learning new ways of responding in interpersonal situations, compared with didactic teaching methods. Nevertheless group pressure may affect the extent to which an individual group member is able to engage with this process of personal change. (Issues relating to the relationship between groups and individuals will be explored further in Chapter 8, Interactional stance).

It is noticeable that voices from Baslow are not at play in this section. This may stem from the fact that the majority of students at Baslow were school leavers, many with low grade A’ levels and poor self-esteem. It may also be that the way in which PBL was implemented and explained to students at Baslow, resulted in a confusion which rendered many students incapable of utilising the PBL day as an opportunity for grounding the learning in their lived experience, or seeing learning as being something which was personally empowering. Although many Baslow students did voice their conflicts with the aims and purposes of PBL, (apart from Janet and Walter), they were not voiced in a way which conveyed a strong sense of their own position towards what was being learned. This seems to be due to a mistrust of their own sense of knowing, and not as voiced (above) by Chris, Rob and Sophy.

Re-placing myself: knowing the world differently

The notion of 'knowing the world differently' captures the idea that students were able to frame their learning experiences for themselves, and simultaneously could challenge the institutions and sociopolitical contexts in which they lived, worked and learned. Thus students within this domain were able to take up alternative perspectives in order to challenge both themselves and the world.

Two students, Ian at Stanage and Walter at Baslow, captured a particular view of personal stance which was not spoken of by other students. Several students in the study had begun to move *towards* the position of 'knowing the world differently' in the sense that they had begun to move in the direction of taking a stance towards "their own mental furniture" (Barnett, 1994: 174). Yet Ian and Walter were two students who had in fact made a shift to knowing the world differently. Their notion of personal stance captured the ideal that through valuing their own understanding of themselves, their life-world, their learning and the learning context, and the objective world, it was simultaneously possible to challenge the validity of this understanding. Furthermore by having a clear and firmly based sense of self it was possible to act upon, rather than be subject to, events and thus transcend the world of both "corporate competence and academic competence" (Barnett, 1994: 178).

Ian saw his personal stance, although he did not speak directly in these terms, as his self in transition: he saw his relationship with what was being learned as a cyclical process in which he continually honed his values in relation to new material he was encountering. For example he saw learning situations as being open-ended so that new material (whether it be knowledge, skills or values) which he encountered in learning was not necessarily expected to supersede the old. Instead all, some or none of it was integrated. Thus newer values and ideals may or may not be replaced or displaced by new ones.

It was through this honing process that he saw the world in different terms. As an undergraduate in social ethics and religious studies, Ian became increasingly interested in community work and worked on a number of community projects before deciding to train as a social worker. His personal stance was linked to his notion of community work: that individuals should be seen in relation to their sociopolitical context and the means by which they experience that context. Although he acknowledged that PBL had facilitated -through reading or discussion with other students- an exploration of his current values, he argued that PBL did not enable students to consider the relationship between their own personal philosophies and those of social work. He explained:

“Issues like child protection (*is a key issue for me*) because it’s forced people to confront their own particular perspectives and the way they act in social work - I mean, there are other things as well like homelessness and the myths about homelessness and that gave me a chance personally to provide that different perspective within the structure at the time . So it’s a lot of times provided a chance for people to understand that people do have slightly different approaches to issues, and that sometimes that’s a good thing, and that making decisions in a social work situation you are in effect looking at it from your own perspective and your own philosophy, which is very strong in community work, but I don’t think it’s that strong in Social Work.”

Ian’s view was that individuals should be aware of their own political agenda and personal prejudice and bias, and that they should therefore be clear about what they were bringing to a situation when dealing with clients. Through PBL Ian had been both prompted to and enabled to confront the issues which underpinned his own practice and to challenge them. This had occurred because of the way in which the learning which had taken place through PBL had encouraged him to make his own deductions and come to his own decisions on particular social and ethical issues. His personal stance was characterised by a process of continual reflexivity - a more or less continuous interrogation of past, present and future by making himself the subject of his own analysis -so that as an individual he was in a constant stage of transition.

For Walter the meaning of personal stance also lay in its transience. Walter was a mature student who had undertaken a number of jobs before deciding to train as a nurse. He valued the understanding of the world he had gained through working in a variety of situations and saw knowledge as something which was to be used both for his own personal development and the good of society. Where Walter’s perspective differed from that of Ian was in his value of conflict. Walter believed that social change was only really possible through challenging systems and organisations, whereas Ian saw change occurring from within the individual through a process of personal reflexivity.

Walter’s role as both a male nurse and a mature student had caused controversy on some of the wards on which he was training, but the chief issue he raised was the conflict between the perspective of the individual and what he believed was felt to be acceptable within the profession:

“Many of the people on this course’s natural instincts didn’t coincide with what we were being told - one of the things that springs to mind is the dresses, where you had to wear a lovely dress when you went out on community because that’s what nice nurses did, and one or two of the more radical elements here insisted on wearing women’s trousers. And there was a real danger there, wasn’t there? -that you might get into serious mischief.”

For Walter abandoning the traditional image of a nurse was key to his own and other students' personal growth. Although a number of students still embraced the powerful traditional image of a nurse as that of someone who did as they were told and fitted into the hospital hierarchy, he argued that the short term payoffs were not worth the long term costs.

For Walter PBL was an opportunity for change within the profession and a mechanism through which students could become questioning, reflective practitioners. PBL involved challenging not only his own personal stance but those of his peers, the tutors and the professionals with whom he worked on clinical practice.

Summary

PBL is likely to promote a challenge, and often a shift in some way, in students' lives; not just as a new or different way of learning but in terms of challenging the relationship between their previous experiences, their life world and their new experiences, including the encounter with PBL. Personal stance encompasses the means by which students discover, define and place themselves within the PBL environment and expresses the interplay between what they bring to, and take from, their learning experiences. The variables which affect the extent of the challenge of PBL to someone's personal stance are broad and complex. For example, challenge occurred for students through the conflict between their expectations and experiences of the course. These were conflicts between their anticipation about the nature of support, tutors' values and the relationship between prior experience and current learning, compared with what actually materialised in practice.

Challenge also occurred for some students through experiencing differing values held between practitioners and academics, and the learning institution and the profession for which they were training. Yet challenge and subsequent transition within the realm of personal stance did not always result from conflict, for some it occurred through self-validation which promoted self-discovery. For others transition occurred through an ability to see conflict, and following evaluation and reflection to reappraise and value their own perspectives.

Thus students in this study defined their personal stance in a variety of ways but what was significant was that it was never defined as just an encounter with a body of knowledge. Rather personal stance, at whatever level, was spoken of in terms of change which had personal consequences.

Chapter 7.
Dimension 2 Pedagogical stance

Introduction

This chapter will explore the differing domains within pedagogical stance. The domains within pedagogical stance are 'reproductive pedagogy', 'strategic pedagogy', 'pedagogical autonomy' and 'reflective pedagogy'. These concepts will provide the structure of the chapter.

In this study the notion of pedagogical stance was developed in order to express the Dimensions of Learner Experience which encapsulate the way participants in this study saw themselves as learners in particular educational environments. Students' pedagogical stances are constructed through a combination of their prior learning experiences, their often taken-for-granted, notions of learning and teaching, and through the type of higher education which they receive. The choices students make within a learning situation and the particular learner history which they bring to a learning environment all influence students' pedagogical stance. The concept of pedagogical stance acknowledges the relationship between the self and what is being learned. Thus for some students a central concept within pedagogical stance was a sense of knowing that it was important both to make one's own knowledge and make knowledge one's own.

Reproductive pedagogy

Reproductive pedagogy expresses the idea that students may revert to methods of learning that they have always used, despite the considerable difference they may have encountered between methods of learning experienced at school compared with those at university. Reproductive pedagogy is characterised by students assimilating and reproducing information supplied by academics, on academics' terms.

Marton and Säljö (1976a; 1976b) in their research at the University of Gothenburg explored students' approaches to, and outcomes of, learning. They found two approaches which were qualitatively different. Firstly the *surface* approach whereby the student directs her attention to the learning of the texts and adopts predominantly rote strategies. Secondly the *deep* approach characterised by the student exploring the intentional content of the material to be learned, thereby putting comprehension above the need for rote memorisation. The Gothenburg studies also demonstrated that students' approaches to studying were affected by their conception of the task and that a student's decision to adopt a surface approach ruled out the possibility of a deep outcome because it was not seen as the purpose of the learning.

Although students' decisions to adopt surface approaches in this study were affected to some extent by their conception of the task, the extent to which students' core aspects of their identities as learners felt threatened also seemed to affect the degree to which it was possible to adopt deep approaches. For example, students may have been taught didactically at school and thus adopted surface approaches to learning, yet on encountering a form of PBL which demanded exploration and critique of material to be learned (deep approaches) they still used surface approaches. These students chose to use methods of learning with which they felt familiar and which posed little challenge to their identity as learners, or their understandings of their life-world. A tendency towards reproductive pedagogy may also occur because the nature of the curriculum reinforces surface approaches to learning.

In this study reproductive pedagogy was also characterised by students' individual notions of learning and teaching, as well as their view of the student-teacher relationship. Learning, for these students, was expected to be safe and predictable, requiring neither personal initiative nor critical thought. Teachers were seen to be the suppliers of all legitimate knowledge, since anything less would result in risk and failure for the students and inefficiency in their role as tutor.

Phil, at Gimmer, was one of two students who demonstrated enabling disjunction within reproductive pedagogy, characterised by being offered, and adopting, an opportunity to learn in ways which were, for him, both familiar and effective. He had obtained high grades in A' level science and had been obliged to opt for the PBL module in vibrations engineering as his final year project was also in this subject. Throughout his degree he had chosen exam-based modules in order to "get the best marks" and believed that any sense of enjoying and connecting with what was being learned was secondary to obtaining a good degree. Phil defined himself as someone who was competent in passing exams. Through a knowledge of himself and his capacity as a 'skilled student', he distinguished studying from learning which might entail personal engagement, in order to 'read' the system and make it work for him. Thus his pedagogical stance was characterised by assimilating and reproducing information supplied by academics, on academics' terms.

Trevor's pedagogical stance was also characterised by a positive view of his own approach to learning. Unlike Phil, this stemmed initially from disjunction which was disabling, and which subsequently became enabling when he realised the value of reverting to approaches to learning which had been effective previously. Having undertaken a three year apprenticeship from the age of 16, followed by a lecture-based HND, he obtained a place to undertake mechanical engineering at Lambert.

He now regretted his choice to move to the AMD course in the second year because he felt he could have learnt more had he “undertaken the right course” for him. Trevor’s approach to learning was one of learning facts and memorising right answers which resulted in a number of objections to PBL. One of these was the type of lectures he received on this course compared with those on the traditional mechanical engineering degree of the first year. He explained:

“Some of the lectures are proper lectures, some of the design lectures are so loose and so open ended you can do what you want. I prefer to do analytical stuff, you do something and you’re right or wrong, end of story.”

Proper lectures as far as Trevor was concerned were those which gave him the right facts with which he could pass the examinations. Learning through PBL did not offer the structure or right answers he required and was thus unlikely to empower him to pass the course. Trevor adhered to reproductive pedagogy because he found the form of lectures and seminars on PBL did not equip him with the facts he felt he required to be an effective engineer. Thus disjunction, caused by his negative encounter with PBL, had enabled Trevor to value his prior approach to learning rather than the approach to learning offered through PBL. His prior experience and assumptions about the nature of learning were the basis for adopting reproductive pedagogy.

For a number of students across the sites there was a sense of being driven into reproductive pedagogy through forms of disabling disjunction prompted by issues which appeared to be beyond their control. Disjunction such as this seemed to arise either through conflicts between staffs’ espoused theories and their theories in use, or from the relationship between prior learning experiences and new and different ones. For these students disabling disjunction experienced within this domain appeared to be a transitional phase *en route* to other domains. For example students who felt trapped in reproductive pedagogy through hidden agendas imposed by staff were later able to transcend staff agendas in preference for their own. This occurred through forms of disjunction which were, or became, enabling and resulted in a greater sense of integration. Sally at Baslow and Nicola at Stanage capture the essence of these struggles.

Sally chose to do a degree in nursing, rather than a diploma, because she felt it would both be more challenging and a better qualification. She felt that there was a hidden agenda within the PBL component of the course and believed that students were expected to guess what they were supposed to be doing and would only be told this if they produced the right answers. As a result Sally felt that there were double standards about the nature of learning within the course. She was told that she must learn how to learn for herself, and make her own decisions about how she learned.

Yet if her concept of learning did not fit with that of the tutors then the opportunity to learn for herself and develop skills in independent inquiry were removed. Sally cited an example of one of the confusions she experienced:

“The PBL days, we had a sheet which said ‘problem’, and I can’t remember what else it said on it but it could be interpreted several different ways, anyway we interpreted it the wrong way because we went and looked at our own lot of problems that we’d come up with . . . It wasn’t just my perception (*that it was wrong*) but everybody’s. Cos, (*Sally cites a conversation she had with a tutor*) ‘What are you doing this for, what are you all looking at separate things for?’ ‘Well because that’s what we thought we had to do’ ‘No that wasn’t what you had to do’ ‘What were we supposed to do then?’ ‘Look at a problem’ ‘We are looking at a problem.’”

Sally’s experience of the confusion between staffs’ espoused theories and theories-in-use was demonstrated through two issues. Firstly staff appeared to be confused about how to implement a form of PBL which promoted independent inquiry without a hidden agenda. Secondly individual staff members were aware of conflicts between their public and private agendas. *Joan* was one tutor at Baslow who demonstrated the complexity of these issues. *Joan* had initiated the implementation of PBL and argued that students should become, through PBL, self-directed learners who could manage their time and could learn how to learn for themselves. Yet in practice she found that what she espoused was difficult to implement in practice. She demanded that the students came back at the end of the PBL day to present their findings to prove that they had been working. *Joan* explained her dilemma:

“I thought ‘I want them to come back’ and this was something in me saying, something saying ‘they’re not to be trusted they’ll just go off and not do anything’ I insisted they came back. So there were in some ways double standards, if you like, I’m saying ‘Go away and be self-sufficient’ and yet on the other hand I’m saying ‘Come back and tell me what you’ve done’ ”

Joan wanted to be in control and to take responsibility for students’ learning because this was how she saw her role as a tutor. Being a responsible tutor was about making sure learning was taking place, and that students were doing what they were told; going off to be independent learners. *Joan* was confused about her own feelings concerning the nature of learning and independent inquiry within PBL, which resulted in confusion and bewilderment for students who were receiving conflicting messages. For students such as Sally reproductive pedagogy provided a means of learning which offered most safety and least risk both to her identity as a learner and in terms of passing the course.

Nicola offered a different perspective regarding the relationship between tutor and student. She had not experienced conflict between staffs' espoused theories and theories in use, instead her own expectations of tutors resulted in the adoption of reproductive pedagogy. Nicola was a graduate who had worked in a children's home for four years before coming to Stanage to undertake a diploma in Social work. She believed that tutors were there to ensure that she learned what she was supposed to know in order to be a social worker. Her view of tutors as authorities with the right answers meant that rather than risk learning knowledge for herself, she opted to reproduce information and ideas supplied and acquired through academics. This was characterised by the considerable time she spent producing assessed work rather than undertaking work which held personal meaning, and by her desire for clear directions from tutors which reflected her insecurity in her ability to learn for herself:

"It's frustrating that you have this person sitting there, the facilitator . . . I sometimes think, 'well I wish they'd tell us the answer'. You lack confidence in yourself and you think 'well, are we talking a load of rubbish here or are we completely going off at a tangent?' to 'What's this person thinking?' "

Nicola's lack of confidence, compounded by her belief that tutors had all the right answers, resulted in her adoption of reproductive pedagogy as the means of ensuring that she 'bought into' the academics' agenda. This involved producing assessed work which included the correct values and knowledge, and developing a social work identity which she believed reflected the philosophy and rites of the profession.

Reproductive pedagogy was in evidence across all sites. Disabling disjunction appeared to be more apparent at sites where considerable focus was placed upon gaining both propositional knowledge and particular answers to the given problems. This resulted in conflict for students about the nature of self-direction and autonomy within these programmes and often prohibited students from both organising their knowledge in a discriminating way and "knowing what to do with their knowing" (Barnett, 1994: 85).

Strategic pedagogy

For a third of the students in the study strategic pedagogy captured an ability, through PBL, to adopt the perceptions of staff expectations of learning in anticipation that it would be the most effective means of passing the course. Thus students buy into academics' agendas and dominant perspectives and adapt their learning to that which they perceive is expected of them. In this category students may use several different learning strategies, but these are all within the remit of what is acceptable to the authorities and the student. Students in this domain may adopt strategic approaches (Entwistle, 1981; 1987). However the concept of strategic pedagogy extends the concept of strategic approaches by encompassing issues particular to higher education in the 1990s. For example central issues include vocationalism and flexible career paths whereby students are equipped to be adaptable to the changing demands of the world of work and have a willingness to adopt, and to adapt to, new values readily. Thus students in this domain see learning as being strategically linked to the world of work. Adapting their learning will ensure that they are equipped with the necessary skills and knowledge for the work place.

Barnett (1994) argues that there is a migration into the academic world of values which promote strategic reasoning, rather than interactive and collaborative forms of reasoning and critical reasoning; values which focus upon achievement and outcomes, and upon innovation for profitability and survival. Thus higher education promotes pragmatic responses to problems in society whilst down grading reasoning, (of the critical sort), which encourages students to form their own ideas and judgments and keep their own critical distance from all they experience within a course. In this study students within this domain adopted strategic reasoning rather than critical reasoning.

Themes emerged about the way in which students adopted different strategies for managing learning. These differences related to the kinds of knowledge which were allowed to be examined and the ways in which students were expected to explore this knowledge by staff and practitioners. For example at Gimmer and Lember, tutors assumed in general that knowledge preceded action and thus focussed students' attention on a specific body of knowledge. Coupled with this was the perspective that problems were to be solved, which implied that they could in fact be limited, and that there was a 'best answer'. Whereas at Stanage and Baslow, although students were encouraged to explore problems and situations which did not necessarily lend themselves to tidy solutions, they were encouraged to work within frameworks which guided both decision making and the kinds of knowledge upon which they were intended to focus.

At Gimmer students adopted two main strategies which they believed had been positive influences upon their ability to learn and develop problem-solving abilities. The first was seeking out and listening for cues about what was required for inclusion within the written assessment report. The second was listening for insinuations about the way in which the problem was required to be solved.

Charles left school to undertake a degree in mechanical engineering at Gimmer. He captured a particular type of strategic pedagogy, characterised by being 'cue-conscious' (Miller and Parlett, 1974) which was a positive experience for him and for a number of students at Gimmer. Charles spent the first two years of his degree undertaking lecture-based modules and wondering what he was doing at Gimmer. This was because he was expected to memorise facts which he felt bore little relationship with the real world of engineering. He was now really enjoying the third year PBL module because it was much more practically orientated and applied.

Charles explained that *Bob* required students to know and understand certain key issues by the end of a given problem. PBL in the third year had made more sense to Charles than anything else he had studied in the whole degree because he could understand the hints about what he was supposed to be doing (which he had been unable to do in the lecture-based components of the course), and he could develop the learning techniques and strategies which were required. He explained a particular difference which he had experienced between submitting work to be assessed on the PBL module compared with the traditionally taught modules.

"You act as a consultant/client all the time . . . and you have to write a 20 page report or whatever, what they never tell you is how long it has to be, its always up to you, so this in itself is quite useful to do, so you don't put in irrelevant information, and they clobber you if you put in too much, which is rather unusual."

Charles had learnt that it was more important to produce quality work by supplying answers which were relevant to the problem posed. His previous experience on exam-based modules at Gimmer was of pouring out previously memorised information on to the exam paper to maximise the possibility of gaining some marks. Through PBL he realised that instead he would get 'clobbered' for this approach and although he had not been told how extensive the report should be, he needed to find strategies for producing the required information.

Luke and Jenny, like Charles, spoke of the need to tailor their report in a way which incorporated the material required by tutors. However they also spoke of being expected to solve the problems through a given, though covert, procedure. Thus at Gimmer students were expected to discover the preordained problem-solving methods.

This resulted in problem-solving becoming linear and reductionist, with students in effect not being encouraged to explore the existence of alternatives. Despite this Luke valued the opportunity to learn in a way which had meaning for him and developed strategies for obtaining information from tutors. He explained:

“They’re normally quite cautious about telling us what to do, they never actually tell us exactly, “No you’ve done things wrong” or “No you’re looking at this the wrong way” or whatever. But I’ve noticed that they always tend to sort of be very vague - not necessarily unhelpful because you can eventually bring them around to telling you what you wanted to hear. But you have to do all the work. You have to tell them what you want to know exactly and if you’re on the right track they’ll tell you, they’re not going to come straight out and give you the answer.”

Luke’s perspective was that PBL had enabled him to learn how to ask the correct type of questions in order to obtain information, a skill he believed would be vital to passing the course, but also a useful one to develop for his future career.

Although these students found the adoption of strategies useful in terms of passing the course and in terms of developing skills and abilities which would be useful in their future career, there were also drawbacks to these methods. For example the operation of covert criteria seemed to reinforce strategic pedagogy in students, rather than promote the independent inquiry and critical analysis espoused by tutors.

Listening for cues about the way in which a problem was required to be solved was not only raised by students at Gimmer, it was also raised at Lemberth but in a different way. Here the process of learning experienced through PBL enabled students to develop strategic problem-solving abilities by being encouraged by tutors to solve problems in a particular way. Instead of tutors ‘being vague’ as at Gimmer, here they enabled students to solve the problems through a clear framework to which students were expected to adapt. Although several students spoke of the way in which they valued the form of problem-solving employed at Lemberth, because of the sense of integration they experienced (compared with experiences of learning on more didactic programmes), the integration which was spoken of appeared to be something which was, in the long term, disabling.

William and Mike were two students at Lemberth who spoke about their pedagogical stance in terms of the way in which they had been ‘forced to think’ or ‘given a push’ in the AMD course. William captures the sense of resonance which he and Mike experienced when learning through PBL. William had already experienced support from staff and students which had helped him to value his prior experiences and to develop his self-confidence. He now believed that the tutors were there to guide him and support him in his learning and that by being pushed in this way he would develop improved problem-solving abilities:

“We are supposed to be trying to learn something so the lecturers can’t just say “oh this is the answer” they’ve actually got to try and get us to find the answer, they’ve got to give us a little push, it’s just the way it’s got to be, they’ve got to just keep pushing us until we sort of see what the problem is and work it out for ourselves.”

William valued being encouraged by tutors, and in the long term he felt that it would enable him to learn to work things out for himself, without being pushed. However being forced to think, or being given a push did not appear to promote in students the ability to think critically and thus recognise that what counted as truth could be viewed from a number of perspectives. Instead students were expected to work within the framework supplied by and accepted by academics. Students were inducted into this (disabling) thinking and reasoning process through Socratic methods used by tutors. For example *Frank* at Lemberg argued:

“ It all seems perfectly natural to them, they’ve spotted the need for this (*knowledge*) and of course the problems have been designed so that you present to them the whole knowledge base in what you believe to be a logical sequence. But they see it quite differently, it looks completely natural to them as if this happened to be a problem he thought up and it so happens that we need this theory. But if you look at the basic theory that I’m following it’ll be dealt with in exactly the same order as it would have been on the conventional course.”

Frank believed that he was presenting knowledge in a way which he perceived to be a logical sequence. PBL for *Frank* was about guiding students through his own logical step-by-step approach to problem-solving. *Frank’s* perspective demonstrates that his “epistemological priority” (Margetson, 1993a: 42) was that students needed particular knowledge, in this case subject-based knowledge, to solve problems. He was neglecting the distinction between knowledge required to understand a problem initially, knowledge needed to solve a problem and not only the relationship between the two but also the way in which learning occurs in relation to this (Margetson, 1993a: 42).

However Ben was one student at Lemberg who, through a negative learning encounter, experienced enabling disjunction. He explained an incident within the course in which he and his group had challenged the tutor’s means of solving a problem by offering a different solution strategy.

Ben attended a comprehensive school and opted for technical college to undertake an OND. He argued that engineers should not just have ‘theoretical knowledge’, but should also have skills and abilities which could be used to offer pragmatic solutions to problems. Application and understanding were issues which Ben felt were key to being able to apply his knowledge.

They were skills which had enabled him to learn to solve problems effectively by using his knowledge in a way in which he had been unable to do on the mechanical engineering course he had undertaken in the first year. Now, in the final year, he felt angry when tutors imposed their own strategies upon students. Ben and his group solved a problem and presented the solution to a tutor who argued that their solution was incorrect. Ben investigated a number of methods to disprove the groups' solution but could not do so. It later transpired that his solution was actually a different, but correct solution, a solution that the tutor had not considered. Incidents such as this had confirmed for Ben that although he was being better equipped through this course than a lecture-based course, he had not been offered the opportunities to develop fully his problem-solving skills.

For other students, adopting strategic pedagogy was a negative experience whereby students felt 'infantilised' and believed that they were prevented from becoming more autonomous within their pedagogical stance, even if they had wished to do so. To do so would mean risking their qualification through failure which was imposed by a system with which they disagreed. They adopted strategic pedagogy in some parts of the course in order to ensure that they secured the long term benefit of avoiding failure. At Stanage two students described their pedagogical stance in terms of the negative experiences which emerged in relation to the institutional culture.

Sophy at Stanage valued PBL as a useful method of learning for social work practice, but found the need to adopt strategies to discover assessment criteria and meet deadlines a negative component of the learning experience. She explained firstly that if assessment submission dates were negotiable then the learning, rather than the deadline, would be the priority. Deadlines displaced her ability to organise her own learning. For Sophy there were real tensions around freedom and accountability in a course where staff espoused personal autonomy and independent inquiry. An incident elucidated her concern:

"the child study involved sort of going to nurseries, and it all had to be in by January . . . and lots of people had problems organising nurseries . . . I was one- which meant it was impossible to do my work without taking up all my Christmas holidays and I went and explained "Well I'm not going to learn as much as if I'd had an extra couple of weeks . . . and I'd like an extra bit of time so I could learn more as I was writing up the essay". But because of this 80 students it's really difficult to organise different essays coming in at different times and get them into the marking systems- there's no negotiation really."

Sophy experienced disabling disjunction because the learning became less of a priority than the deadline. This disjunction promoted a shift away from integration because the emphasis on the deadline had prevented her, and other students, from organising their own learning in their own time with their own skills and techniques.

The necessity of discovering assessment criteria was raised by several students at Stanage who saw marking as a concern. They felt confused about how the criteria were to be interpreted. This confusion was exacerbated by the lack of information supplied about assessments and the inadequacy of feedback following assessed work. A simultaneous concern was the fact that students were also being marked against a Masters grade. Students at Stanage who gained high marks throughout the Diploma could then transfer to the Masters programme, undertaking a further year and submitting a dissertation. As some students were striving to enter the Masters programme, strategic methods (both within pedagogical and interactional stance) were adopted by students in order to maintain consistently high grades. Students adopted strategic methods to avert failure, to cope with the confusions associated with assessment and to attempt to attune themselves with staffs' conceptions of knowledge.

A further issue was raised by Olive who spoke of her pedagogical stance in terms of a concern about being 'cloned' into a particular sort of social worker. Having spent a number of years working in the probation service, she saw being cloned as adopting government policy and social work practice without question. Although Olive felt that she had been encouraged to be analytical and to reflect critically, simultaneously she argued that there was a framework within which she was allowed to question, but were she to question beyond it she would experience the opprobrium of staff:

"You have to be careful what you're saying sometimes. And you can't get something wrong. It feels like, "Oh god, I've said something wrong," they give you these sort of looks you know, and you think, "Oh shit," you know, "What have I just said?". It feels a bit like there's a judgment going on that you're not quite sure about."

Much of what Olive was experiencing in terms of having to adopt a pedagogical stance through which she was seen to be 'doing and saying the right thing' related to the discipline base of the profession. The normative structure of the profession allowed for questioning within given parameters, those defined and accepted by the academics and professionals, but not beyond. Thus Olive's form of strategic pedagogy related to adopting a stance through which she was able to acquiesce to these norms and avoid failure.

Emily at Baslow also found that she had to say and do the right thing, but this occurred on practice placement rather than at the university. She adopted strategic pedagogy whilst on clinical practice in order not to upset the *status quo*. Practitioners expected students to learn in a particular way and so to avoid failing placements students adopted approaches to learning which would ensure that they passed this component of the course.

Gwen, a tutor at Baslow who had responsibility for overseeing the degree as a whole, explained that when students met traditional nursing attitudes, where student nurses were not expected to identify their own learning needs or to be independent in inquiry, then conflict was the inevitable result for students. Emily's experience illustrates this conflict.

Emily had left school and taken A' levels at technical college before coming to Baslow. Although Emily thought the nursing course was "quite strict" she valued the freedom in learning she experienced in the PBL days. Yet she was uncomfortable about the conflict she experienced on the ward as a result of the preparation work for the PBL days. Students were given a worksheet at the end of the PBL day and were required to choose a topic which they would subsequently research during the following week on the wards. Carrying out this research caused conflict for both the nurse practitioners and the students. Emily explained:

We had these worksheets that we had to do . . . but most of the time I was working just as hard as everybody else was on the ward even though I was just a student. I didn't really want to sit down and look as if all I was doing was taking notes, I just wanted to get on with it really. Particularly as we're known as the Uni nurses that do nothing practical really. They're not particularly keen on degree nurses, particularly in Baslow General I don't think, and a lot of them are quite standoffish at first. And I think if we sat down at the nursing desk and basically filled out our little forms and our project books and everything like that I think that really didn't help our situation at all I think it was just better for us to get in and start learning from other people rather than filling in questionnaires."

Although Emily valued the opportunity for self-direction and independent study encouraged by PBL, because it enabled her to integrate theory with practice, she opted for strategic pedagogy to ensure she passed her placement. At Baslow practitioners were socialising students into the apprenticeship model of learning where student nurses were not expected to think and reflect, but to do as they were told. Thus students were encouraged to work within frameworks which guided their decision making within practice and adopt forms of knowledge entirely related to these frameworks.

Students in this domain may use several different learning strategies, but these are all within the remit of what is acceptable to both the authorities, (institution, staff, profession) and the student. Therefore strategic reasoning, rather than critical reasoning, is adopted by these students.

Pedagogical autonomy

Students here adopt a position of learning which they perceive will offer them the greatest degree of autonomy. Students opt to learn in a way which suits them and which will offer them, as far as they are concerned, the most effective means of learning, meeting their own personally defined needs as learners yet also ensuring that they will pass the course. The nature of autonomy in this sense stems from the notion that learning for these students does not have to fit entirely within the remit of that defined by authorities. What is important is that the means by which they learn is acceptable to themselves, and if what is on offer is not acceptable, it will be rejected in preference for something which is perceived to offer the desired autonomy.

Janet and Walter, both at Baslow, were two students who offered differing perspectives of pedagogical autonomy. Janet had found that through PBL she had been enabled to become increasingly autonomous in her own learning, in the sense that she had been able to take responsibility for what and how she learned.

Through her experiences at sixth form college Janet had developed an autonomy not possible at school, but at Baslow she encountered attitudes and values within the nursing programme which she saw as barriers to autonomy. The PBL days had helped her to realise what she valued in the learning process - the opportunities to think and to learn independently and to reject what she did not value. Although Janet appreciated some structure in learning, in the sense that she wanted to be clear about staff expectations of students, and to understand what was required of her in assessments, she felt that she gained more from the PBL days than she had from the lecture-based components of the course:

"I liked them much more, (*PBL days*) I felt more happy. I gained more from it . . . it gave you just the chance to sit down and to sort out your day and plan your day as you wanted it, rather having a lecture at 11, 12 or 1. And I didn't ever find those lectures that helpful . . . it was certainly very different to our lectures . . . you could just do what you wanted to do. And I think up to a point people would do more work when you weren't in that, well I know that I did."

These days had enabled Janet to realise that the way in which she learned best was through being encouraged to own her learning and by being enabled to be independent in inquiry. Through PBL Janet came to see that her learning did not have to fit entirely within the remit defined by tutors, and that she could opt to ignore the work sheets supplied by staff in preference for learning which related to her own needs as a learner.

Walter, however, argued that independence in inquiry was something which any student could choose to adopt. He believed that it was just a matter of opting to learn in a way which suited one best.

Walter felt that it was his responsibility to make the decision to be autonomous; teachers were not responsible for enabling this process. Unlike Janet he claimed that opportunities to be independent in inquiry were possible in other components of the course, not just PBL. His management background had equipped him to formulate his own opinions and deductions. This history enabled him to continue to adopt pedagogical autonomy in lecture-based components of the course as well as in PBL. He explained:

“When I worked at Goffs (*firm*) one of the first things that I realised that what I did with my day was very largely up to me, there were constraints, problems would arrive, the way I dealt with them, the complexity that I wanted to go into them was up to me. I created my own autonomy or structure depending on my own confidence, how much I knew, what I wanted to achieve. And I think its like that here. You take on what you want to do.”

Walter saw autonomy as being a choice and a decision for individuals rather than something which was, or could be, imposed upon students by staff or the institution. Walter’s prior experience had enabled him to take advantage of the opportunities to be autonomous within the course. Furthermore, because he valued his own learning needs he was able to adopt a pedagogical stance which, whilst not entirely fitting with the remit defined by the tutors at Baslow, enabled him both to meet his own needs and to ensure he met criteria defined by tutors.

Alice was a student at Stanage who raised a key issue verbalised by a number of students across the sites, but which was spoken about primarily by students at Stanage. This was the notion of being ‘deskilled’. Being ‘deskilled’ captured a theme about students experiencing learning as something which was different from their previous understanding of it, resulting in a feeling of being ill-equipped to cope with a new way of learning. It also reflected something about feeling at odds with themselves in terms of not being sure how to integrate their current roles and experiences with those of their past and future.

Alice, a sociology graduate, worked as a volunteer for social services and then as a group worker with people with learning difficulties, before training to be a social worker. Through PBL Alice realised that she became increasingly autonomous as a learner. At the beginning of the course she initially felt incapable of coping with a different form of learning which to her seemed to conflict with her previous notion of learning. Consequently she felt that any skills and abilities that she had attained in her degree course had been swept aside by a method of learning (PBL) which demanded very different abilities.

During her sociology degree she had attended lectures and had largely worked independently. Working and learning in a PBL group had challenged her notion of learning and also the values that she had placed on learning on her own. Thus for Alice conflict was caused by experiencing two different methods of learning which had different values and emphases. For example working on her own and attending lectures conflicted with the ethos of PBL at Stanage with its emphasis on collaborative learning. As a result she experienced conflict in learning how to learn through PBL and learning about her role as a group member. Yet this conflict brought about enabling disjunction through which Alice was able to understand what it was she valued in a learning experience. This occurred in two ways. Firstly she was prompted through PBL to explore her own understanding of what constituted learning. She explained how she and peers *had* described the course and illustrated how her perspective had changed:

“There’s a name generated within the student body (*about the course*) and it’s called “Fuck off and find out” it’s what this course is about, so that’s what a lot of people are saying . . . In some ways it is like that really. It’s like “here’s the information” or some of it, this is what you need to know, now go and find out for yourselves in your groups. I quite like that. I wouldn’t like - I didn’t like the situation at college when I had lectures and I had someone saying “I know all the information you just have to sit and listen”. At least with this course you realise skills that you’ve got and you can find out ways of developing those skills and knowledge and sharing it with the group.”

Secondly the self validation she experienced through the groups to which she belonged enabled her to assess critically her prior experience and roles, and to realise that in fact she had not actually been deskilled, but reaffirmed in her skills and abilities. (This will be explored further in interactional stance). Disjunction experienced in being ‘deskilled’ was enabling as it had helped her to review and value, both on her own and in the context of the group, the knowledge and abilities she had brought to the course. However for Rob and Chris being deskilled was a negative experience where they felt constrained and were seemingly unable to progress.

Chris and Rob both expected that PBL would offer them more autonomy than, as far as they were concerned, it in fact did. Thus they adopted an autonomous stance which, they felt, met their needs as learners. They spoke of the way in which tutors’ own notions of the nature of knowledge and their understandings of PBL had resulted in students being given either too much direction in Chris’ case, or too little direction in Rob’s case. Students like Chris felt deskilled because they felt that their prior experiences and current perspectives were not valued.

For example Chris' experience of working in industry during his summer holidays had equipped him to solve realistic engineering problems in a creative way which contrasted sharply with being told how to solve problems in a particular way in the PBL module. He felt disempowered when his own views about contradictions between rhetoric and reality were disregarded. Chris therefore adopted pedagogical autonomy by exploring other avenues, beyond those defined by tutors, in order to form his own judgments and to articulate his own position, even if these stood in conflict to that of the tutor.

Whereas Rob felt that, within the freedom to learn available to students on the PBL programme, there also needed to be a degree of guidance which facilitated rather than disempowered students' learning. Rob initially attempted to be as autonomous as possible within the course, by researching information independently because he realised that PBL in many ways was a more appropriate way to learn than lecture-based methods. He also valued the opportunity PBL offered of enabling him to formulate his own judgments about facts and values. However, having accumulated a considerable amount of information, he felt that much of it was not very useful and that his time and energy had been wasted in acquiring it. He explained:

"I do feel there perhaps needs to be a better balance between the didactic style of teaching and the do-it-yourself style of teaching, that actually gives some meat to get hold of on any one issue, would enable people, certainly myself to get into much more readily, rather than spending what feels like a lot of wasted time ploughing through a lot of irrelevant material. I feel I've picked up a hell of a lot of information and it does feel a lot of it is not useful information, either for the course or for my practice."

In essence Rob had been deskilled through too much autonomy. Although he had valued the opportunity to be autonomous and had adopted a stance which reflected this desire, he also verbalised his need to learn how to become, or to be enabled to become, more autonomous. Rob required that tutors facilitate his self-organisation so that he could operate effectively within a system which allowed for a considerable degree of freedom. Without a degree of guidance, the amount of autonomy given appeared, for Rob, to result in learning which was both counterproductive and which in reality inhibited rather than promoted autonomy.

Across the sites students within this domain demonstrated an ability to be, or to become, independent in making decisions about what and how they learned. The degree of autonomy possible within each PBL programme was not only affected by learner history and self-esteem, but also by staff espoused theories and theories in use, by the type of guidance on offer and by the degree of responsibility students were both able, and enabled, to take for their own learning.

Reflective pedagogy

Reflective pedagogy (similar to Barnett's 'reflective knowing', Barnett, 1994: 180), encompasses the notion that students see learning and epistemology as flexible entities. Students within this domain perceive that there are also other valid ways of seeing things besides their own perspective and they accept that all kinds of knowing can help them to 'know' the world better. Learning thus involves evaluating critically not only the knowledge supplied by tutors, but also the values implicit within that knowledge. Additionally within the realm of reflective pedagogy students value and endorse learning they see and hear which has occurred in other life-worlds besides their own. Students in this domain seek to understand the life-world of others, those of peers and tutors, in order to learn from the experience of others and/or to reflect upon the life-worlds of others. Through this learning and understanding they endeavour to evaluate themselves critically. Thus reflective pedagogy is a stance through which students see themselves and their learning as a reflexive project.

Clare was one student who experienced disjunction which was enabling within her personal stance, which subsequently facilitated transition in her pedagogical stance. When she first began the course at Stanage she, and the group to which she belonged, focussed on researching information each week and feeding this back to the group since learning was seen as researching and sharing information. As the course progressed, learning was seen more in terms of valuing and sharing life and work experience in order to learn collaboratively. Initially Clare was concerned that this latter process would mean that there would be a lot of gaps in her knowledge base since she still saw knowledge in terms of acquiring facts. Although, as the course progressed, she felt overwhelmed by the skills and knowledge areas she was "trying to get to grips with", the fragmentation within her personal stance which she experienced was positive in that she felt confident that everything would cohere. Clare's expectation of, and initial encounter with, the learning experience had primarily resulted in disjunction which challenged her perception of knowledge. The fragmentation in her personal stance meant that she saw herself as a learner who had acquired disparate chunks of knowledge which would eventually cohere, and thus within her pedagogical stance she focussed on the gaps between the chunks of knowledge. Disjunction in her pedagogical stance resulted from her expectations that staff would enable her to fill these gaps. She found that staff did not see themselves as gap fillers and realised that it was no longer "the sort of phenomenon of tutors as experts and us there, just sort of receiving pearls of wisdom", but that she was expected both to make her own knowledge, and to make knowledge her own. Disjunction within her pedagogical stance resulted in transition.

Clare moved from reproductive pedagogy where she saw learning as the acquisition of facts supplied by academics - as experienced during her first degree, to reflective pedagogy where learning involved not only critically evaluating knowledge but also the values implicit within that knowledge. Clare reflected upon her learning experiences:

“Its not just sort of helping you to get to grips with child protection procedure and stuff like that, its more issue based . . . I think the point of view of gaining awareness and insight is also a valuable approach. I think awareness and insight of ourselves and our needs, its very important in social work that you have that self-awareness, that you’re aware of your needs, you’re aware of your own values and perceptions and reactions and so on, as a worker going out into the field.”

Whereas for Jackie her personal and pedagogical stances were inextricably linked. She argued that she found it difficult to “talk about PBL in the course separately from me as a person and my kind of life pattern and processes.” Jackie’s view of herself as someone who was academically capable, and who was confident in her own ability to question the knowledge and ethical principles laid before her, meant that she was prepared to take risks and challenge the *status quo*. Jackie saw knowledge as something which was to be challenged and explored not only within the framework of the university but also within practice, and across the culture of practice and higher education. Ian had a similar perspective. His pedagogical stance was linked to the values he saw as being implicit within knowledge provided by academics and within experiences and knowledge with which he was supplied in practice, both before commencing the course and on practice placements. Ian argued that PBL offered students opportunities, though somewhat limited, for exploring their perspectives and values in relation to the social work values which they were being encouraged to adopt:

“I think where the difficulty is, is that the PBL course hasn’t taken into account that there’s a continual interaction between your own experiences and your particular Social Work philosophy or perspective. And that if you’re actually going to talk about your experiences within the group work context you have to take into account that there is a Social Work philosophy which develops out of that, which also affects the way you work.”

For Ian, learning was the process of evaluating personal knowledge critically in the light of propositional knowledge. Encountering other students’ views of the world had encouraged him to become more self-reflective and revisit his assumptions and values. Yet he was concerned about the extent to which knowledge could be legitimately explored in the context of practice. Within social work practice there were dominant values which were seen to be unchallengeable. For students to become increasingly reflexive within their pedagogical stance it was vital to understand that knowledge and learning were related to more than acquiring discipline-based values, learning facts and passing the course. Ian explained his perspective:

“So it’s (*learning*) not necessarily that much to do with facts, I think you do need facts, you do need to understand the issues to be worked through, but on the other hand it’s more important to look at the way experiences you’ve had in these areas have affected your approach.”

Examining prior experiences of social work practice was key to seeing learning and epistemology as flexible entities, and thus being able to evaluate and challenge concepts, ideas and assumptions.

A further concern Ian raised was the way in which PBL focussed on clients as ‘problems’; he felt PBL promoted a particular kind of view of the client: that they were reducible and solvable. This concern was echoed by *Geoff*, a tutor at Stanage, who argued that if the nature of problems with which students were supplied were broader and more encompassing then this might in fact promote a shift away from seeing them as solvable and having correct answers, which in turn would encourage students to become ‘critical thinkers’:

“I’d like to see study units which direct students more towards trying to understand theories, ideas, ways of looking at things than plunging them directly into problems experienced by users. It would be interesting for example to set a study unit which said something simple like ‘How the phrase - how is the word ‘family’ to be understood?’ - there’s a great deal of interest and argument and conceptualisation and ideas around that . But we don’t do that, we actually say ‘there’s an illness in this family and it may cause some difficulties for this family, that’s the situation, deal with it.’ The students go directly to the business of what are the problems that might be caused, how can we help to alleviate those, they don’t think about family particularly.”

Although PBL at Stanage *appeared* to facilitate opportunities for critical thinking and to promote reflective pedagogy in a way not in evidence at the other sites, there were still limitations which prevented student transitions into this domain, in particular the framing of the problems and the nature of practice placements and practice-based knowledge.

Students at Gimmer, Lember and Baslow did not feature within reflective pedagogy. This appeared to be due to a number of reasons. Firstly the institutional culture at Gimmer and Baslow, where teaching was predominantly lecture-based, seemed to promote surface learning and subject-based teaching which arose out of the nature of the discipline. At Lember, Baslow and Gimmer, tutors’ theories-in-use resulted in conflicts between staff and student notions of self-direction, particularly in relation to the nature of problem-solving. This resulted in students adopting strategic rather than critical reasoning.

Summary

The concept of pedagogical stance acknowledges the relationship between the self and what is being learned and depicts the way in which students see themselves as learners in particular educational environments. Pedagogical stance may change in relation to other issues in peoples' lives, the learner's self-perceived ability and the conflicts or shared values students have with tutors in those learning situations.

The way in which PBL was both espoused and implemented within these programmes affected, to a large extent, the differing domains of pedagogical stance at play within these environments. For example, students' adoption of a particular stance and the way in which transitions occurred -away from or towards a greater or lesser sense of integration- related to the extent to which a specific process of learning or type of PBL supported a particular view of knowledge. For instance at Baslow PBL is part of a common foundation programme. Thus the underlying assumption is that some matters (particular types of knowledge or subject areas perhaps) are foundational to all other knowledge and to the forms of problem-solving students are required to undertake. Likewise at Gimmer PBL occurs in the third year of a three year degree programme and the body of knowledge which precedes the PBL module is seen to be foundational to it.

Pedagogical stance could also be said to be affected by perceptions about the nature of problem-solving, which is implicitly linked to perceptions about the nature of knowledge. For example at Gimmer and Baslow, and to a lesser extent at Lember (depending on the particular tutor) there was an assumption that students needed to be taught a certain amount of knowledge before they could begin to solve a problem. Whereas in fact Hamlyn (1973) argues that a logical structure of knowledge does not always determine the most appropriate psychological sequence for learning. Nor does it take into account other Dimensions of Learner Experience, such as personal and interactional stance.

However what was noticeable at Stanage was that PBL was seen to be a form of learning through which students could both illuminate experience and be facilitated in the making of judgments and choices, which would appear to be key in the process of learning how to learn (Hutton, 1989: 52). Here, more than at any other site, students were encouraged to move towards a greater sense of integration within their pedagogical stance. This, for many, occurred within the context of group work where students facilitated one another's understandings. Issues such as this will be explored further in Chapter 8, Interactional stance.

Chapter 8.
Dimension 3 Interactional stance

Introduction

This chapter will explore the differing domains within interactional stance. The particular characteristics and complexities of this stance will be demonstrated through the presentation of student data. The domains within interactional stance comprise the 'ethic of individualism', 'validated knowing through 'real talk', 'connecting experience through interaction' and 'transactional dialogue'. These key concepts will provide the structure of the chapter.

Interactional stance is used here to capture the way in which a learner interacts with others within a learning situation. It refers to the relationships between students within groups, and staff-student relationships at both an individual, and a group level. Thus interactional stance encompasses the way in which students interpret the way they as individuals, and others with whom they learn, construct meaning in relation to one another. The way in which one student may theorise about another student within a group setting reflects his/her interactional stance, as do the ways in which students act and speak as they interact with one another. Interactional stance is also a notion which encompasses the means by which students engage with, and attribute meaning to, the processes which occur in groups. It is subsequently through reflection upon these processes that students make sense of their own learning.

The ethic of individualism

The 'ethic of individualism', a term discussed in relation to andragogy by Tennant (1986), was originally coined by Lukes (1973). Lukes argues that this term is a notion in which three principles are key: the dignity of the person, autonomy and self-direction, and self-development. Tennant argues that self-directedness and student-centredness (in the context of some forms of adult education) originate in an ethic of individualism rooted in middle class styles and values, and that these concepts (self-directedness and student-centredness) need to be fully articulated before they are adopted.

In this study the 'ethic of individualism' depicts the notion that some students in the study saw learning within the group as an activity which was only valuable in terms of what they as an individual could gain from it. These students placed little value upon collective learning experiences and were more concerned that they would forfeit marks by expending effort sharing tasks and information within the group than if they worked alone. Students within this domain could often see the value of working and learning within groups because they would need skills in teamwork for their future profession. Despite this they opted for isolation and individualism because they saw this approach as enabling them to obtain a better qualification.

Three students spoke of the way in which their own needs as learners, and particularly their marks, were forfeited at the expense of the group. These men offered differing perspectives about their experiences of working and learning in a group. However what was common to all of these students was the unease connected both with their role within the group and the relationship between their individual concerns and the group's agenda, which for some stood in direct conflict with the collective ethos of the group.

Chris, at Gimmer, was one student who valued the opportunity to work and learn in a group. He valued the opinions of his peers and also the opportunity to discuss different ideas about the problem they were attempting solve. However towards the end of the PBL module he began to wonder about the value that PBL had been to him as an individual. He resented the losses of his own time and own opinion that he experienced through committing himself to the group. For example Chris had been made to wait for several hours while different group members arrived late for the meeting and left early. Furthermore he felt his own opinion was lost amidst the need to reach a group decision:

"I feel that we've got 4 leaders, 4 chiefs and no Indians . . . I feel we're compromising ourselves just to get something together as a group. I'm not sure that's the best way of getting things done."

Chris had originally valued PBL and found that learning in a group had initially enabled him to feel valued as a group member and empowered through that affirmation. However he experienced disabling disjunction through other group members putting their own needs before that of the group which resulted in Chris adopting a similar approach. Thus the collective ethos of learning was destroyed by students choosing to work for their own ends rather than for those of the group.

Trevor, at Lemberth offered a different perspective. Soon after the beginning of the course he realised that he felt PBL did not fit with the way in which he preferred to learn. He learned best alone and disliked the collective ethos of the course because he wanted to be in charge of his own learning in order to learn the facts and get the right answers. He experienced disjunction through a personal struggle to come to terms with learning on a course where he felt he was not being enabled to learn in a way which suited him:

"I'm not keen on it (*group work*). I prefer to work on my own - so I can be my own boss."

Although other students in the group to which Trevor belonged experienced Trevor's approach as something which was disabling -because his opting out of collaborative learning meant that he was perceived as someone who was being carried by the group- Trevor himself did not. He found that by opting out of group work he was able to survive the course in a way that he felt he would have been unable to do, had he attempted to adapt to collaborative learning. Trevor could not see the value of working and learning within groups to develop teamwork skills he could use in his future profession and thus opting for individualism was the most effective means of passing the course.

Unlike Trevor, Phil was able to see that group work at Gimmer would equip him to be an effective team member in his future career in industry. However, his notion of learning affected the extent to which he was able to participate in collaborative work. Phil's pedagogical stance was that of reproductive pedagogy. Throughout his degree he had chosen exam-based modules in order to "get the best marks" and believed that enjoying the work was secondary to getting a good degree. His pedagogical stance was characterised by independence from students and from personal engagement with what was being learned. This in turn affected the extent to which he was able to engage with the group work. For example, he had fixed ideas about the method by which the problem should be solved and the way he wanted the report to be produced. Phil found it difficult to accept that three other people in his group also had their own ideas and that his idea was not always the best one. He felt disadvantaged by not being in control of the work and invariably offered to be the group member who collated the report so that he could ensure that the group's chances of obtaining the highest marks were maximised. Phil thus used strategies within collaborative learning which ensured that he as an individual would gain the best possible marks, even if this meant overruling group opinions and collective values.

Students and staff spoke of a number of ways in which the collective ethos of the group was undermined by individualism, and the extent to which this was spoken about seemed to imply that there were more students in this category than the three mentioned above. It may have been that the majority of students with whom I spoke were committed to group work and collaborative learning. However it might also be that students who were within this domain opted for a different type of individualism than that verbalised by these three men, but were not prepared to admit to or discuss their stance. For example, throughout the study both staff and students spoke of 'passengers'; students who copied work from others and did not contribute effectively to the process of problem-solving within the group.

Conflict between individual needs and the needs of the group occurred when individual group members abused the corporate learning experience by being passengers. This issue was raised by the majority of students and several staff at Gimmer, Lembert and Stanage, though not at Baslow. Mike captures the essence of the struggles experienced by students at Lembert:

“I worry sometimes about this group work in that, well its obviously a problem everywhere, except in an examination, that people get pulled along or can be carried along by the group. When you are doing group work it does worry me when you get a group mark because obviously you got a problem if people don’t turn up, don’t put in the effort.”

Mike’s concern was that although he had worked hard he would not be rewarded, because someone else in the group had not contributed.

The assessment system at Lembert did not promote individual accountability by taking into consideration individual contributions to the group, and students were expected to be able to sort out complex group problems themselves. At Gimmer students were assessed on their individual contributions to the group, but staff and students argued that this was in reality difficult for tutors to assess because they were not present at group meetings. At Stanage students were assessed on individual work only which tended to distort the value placed upon the group work. The Masters programme was seen by staff and students to compound this issue further. For example Sophy, at Stanage, felt that the Masters programme may have attracted students to the course which in turn would mean more funding for the university. She believed that the collective learning experiences were undermined through students who focussed on obtaining high marks to get on to the Masters programme. These students were more concerned that they would forfeit marks by expending effort sharing tasks and information within the group than if they worked alone. Sophy saw this lack of commitment to the group as undermining the whole process of PBL. She explained:

“It hasn’t lived up to expectations of everyone sitting round and sharing and everyone learning, because, I think, of this outside thing of ‘I’ve got to get my Masters and it’s me who matters.’ ”

Harry described how he and the staff group had anticipated that the Masters programme may affect PBL in some way, but that they had not realised just how disabling the introduction of the Masters programme might be to the group work. He felt that it had actually distorted the learning patterns of PBL, in the sense that although the curriculum emphasised the importance of the group going off to work by themselves, it did not reward this in any way. It seemed that students were receiving conflicting signals from the way the course was designed, and the emphasis of what was valued.

It was as if the group work was a central part of the course but that the reality in terms of reward for doing this was non-existent. What was rewarded was written work done by themselves, for themselves.

Students at Baslow did not speak of the ways in which individuals had undermined the collective ethos of the group. This may have been that because of the overall confusion surrounding the nature of PBL, students worked effectively in groups to try to overcome this confusion. However it might also have been that there was greater cohesion within groups at Baslow because PBL occurred within clinical practice weeks and students were eager to meet together and share, explore and reflect upon experiences.

Validated knowing through ‘real talk’

Validated knowing captures the idea that through the experience of being heard within a group, and being valued by other group members, individual students learn to value their own knowledge and experience. Prior experiences of the individual are valued as a resource for learning by other group members and begin to be valued, sometimes for the first time, by the individuals, and subsequently seen as a resource for further learning. Thus for students in this domain learning in groups is often accompanied by a boosting of self-esteem and confidence and, as a consequence, a renewed exploration and facilitation of personal learning aspirations.

At Lember and Stanage students spoke of mutual sharing and support within groups which created a setting for ideas to grow and through which individuals felt empowered through affirmation from peers. The group experience at Baslow and Gimmer, although a positive experience for many students, was not one where growth and personal empowerment took place to the same extent. Instead Baslow and Gimmer were predominantly sites where, through PBL, students used the group to *make sense* of personal dilemmas and material to be learned. Therefore students at these sites tended to be concentrated in the domain ‘connecting experience through interaction’, and will be discussed in the context of that particular domain.

The nature of learning within academic institutions is invariably bound up with the reward of individual rather than group achievement. Much of the ‘real’ learning which occurred through PBL in this study occurred through group interaction but this was not rewarded in academic terms. Students spoke of ‘real’ learning in terms of learning which held personal meaning for them, they spoke of ‘making sense’, ‘connecting’, ‘seeing things in a new way’, all within the context of the group. Thus for many students learning which occurred in relation to the group process actually held more meaning than learning which was rewarded.

A further issue which emerged, and which was particularly in evidence within this domain, was the way in which issues connected with the learning context facilitated not only group cohesion but also the possibility of validation occurring within the group. This was particularly distinct at Lember, and will be explored towards the end of this section.

Two women from Stanage and one man from Lembedt capture the essence of the issues within this domain. They spoke specifically about the way in which they felt endorsed and valued as individuals through the experience of learning within groups. Their differing interactional stances were spoken of in terms of learning which occurred only with, and in relation to, others; and it was through this that they experienced self-validation. However, one student, Jackie from Stanage, experienced disjunction which was disabling as a result of being challenged about her role within the group.

Nicola and Alice were two students at Stanage who came to value their prior experiences through the experience of being valued by other members of the group to which they belonged. Nicola had discovered that in one component of the course she was one of the experts in her group on child work. Being an expert helped her to develop confidence and realise the value of her prior experiences, but also enabled her to develop a more active role in the group than the role she had previously taken. Alice had had her own perspectives challenged within the group but simultaneously had experienced validation of her prior experience:

“With this course you realise skills that you’ve got and you can find out ways of developing those skills and knowledge and sharing it with the group. It’s like brilliant when you know something and just sharing it with the group . . . things like, counselling skills, listening skills, skills about how you go about looking at particular issues or dilemmas and just like thinking about how you’d go about doing things really . . . I can see I’ve learnt quite a lot since I’ve been on this course. And I think you get a lot of that from the group situation, having the situation where people are acknowledging people’s skills in the group.”

Self-validation had enabled Alice not only to realise the virtues of PBL but also to assemble discrete skills and knowledge, so that she was able to both draw on and develop her own abilities.

As a specialist in group work, *Harry*, a tutor at Stanage, felt it important to validate students’ prior experience when they came on the course so that PBL was an “affirming model of education”. He too experienced validation of his prior experience through the feedback of being an effective facilitator. Through the process of self-validation within groups, students became increasingly able to integrate past experiences with current meaningful learning.

Jackie described herself as ‘not an active member of the group’ but, unlike Nicola, whose initial lack of participation within the group stemmed from lack of confidence, Jackie’s role was due to complacency. Jackie expected the group of which she was a member to challenge her and when it did not she became angry. It was through this anger that Jackie initially experienced disjunction which was disabling.

The current group of which she was a member was undemanding of its members who did little preparation:

“I think this particular group I’m talking about I feel what we’ve done is we’ve established a group culture that is very undemanding of each other . . . we’re not doing a huge amount of preparation for the study groups. I mean people are doing some, but they’re not doing a great deal, it’s quite an easy ride . . . I mean I’m more and more realising that I am frustrated by how our group runs, I don’t find it - I mean I’m quite a lazy person and, I suppose I want someone to challenge me on that, and the group hasn’t, why the hell should they?”

Jackie’s anger stemmed from the realisation that in fact the group was reflecting her own complacency, her own inability to be proactive in her own learning which was inhibiting her in moving towards a greater position of integration. Jackie experienced, through the group, a validation of her own complacency which initially resulted in feelings of disempowerment because she did not know how to manage this disjunction. However through the process of reflection upon her own complacency, prompted partly through the first research interview, she was able to challenge the group, and thus move to a greater position of integration within this domain. Thus disjunction which had been disabling became the means, through further reflection and personal exploration, by which enabling disjunction was experienced.

Validation facilitated through the learning context

Integration between the interaction of learners and the learning context seemed to be an issue which particularly seemed to facilitate a validation of individuals through the group. This integration appeared to be more evident at Lember for two reasons. Firstly many of the students at Lember had previously experienced didactic programmes where learning was an individualistic and disparate process. (This issue was also raised by students at Gimmer). Thus learning with and through others was seen by many as a positive experience compared with prior experiences. Secondly the opportunity to learn ‘informally’ because the cohort had a dedicated room was something which was seen by many to demonstrate the value placed by staff on group work.

It was noticeable that a number of staff remarked that the physical learning environment, which comprised a studio for students’ exclusive use, promoted cohesion within the cohort and in particular the small group work. *John* and *Keith* were both tutors at Lember who argued that if each cohort had a room to themselves then many of the entities which featured in the AMD cohort, such as collaborative learning instigated by students in their own time and on their own terms, would materialise in other cohorts as well.

Students felt that having a place to congregate as a cohort when they were not having lectures promoted both a feeling of belonging and a spirit of collectivism which encouraged them to work together both within and across small groups. Jack explained

“Being in the room together is really good it gives you a good feeling of belonging, its your area, people get very territorial about it. And because you’re there people do work. I definitely feel that contributes and sets the atmosphere so you feel you’re all working together to some extent just because you’re all in the same room.”

Students at Lemberth saw learning as a community activity, a social experience where learning did not just occur in the formal group work, it also occurred during lunch breaks and at the pub. This sociality in learning promoted student’s individual self-development through the student community.

Yet students at Lemberth believed that it was not just the room which promoted a sense of collaboration and community. This was just one of several factors. Students across the sites believed that learning in a group had given them the understanding that in collaborative groups it was necessary to both give and receive support so that members could work cohesively. Mike, at Lemberth, captured the way in which many students talked of this:

“You can see from working as a team the help you can give within your group to some of the members that may be struggling about a particular subject. You get self-fulfilment cos you’ve helped them in an area and then you know that perhaps some time in the future they’ll help you.”

The community spirit prompted through group work built a sense of trust and self-validation which enabled students not only to value others, but to also value and share their own knowledge and experience.

Staffs’ pedagogical stances were also a factor which enabled students to see learning as a collaborative process, where sharing and facilitating personal growth was the norm. For example all the students at Lemberth, Gimmer and Baslow found the teaching methods used in the PBL component of the course more informal than those experienced previously. For these students informality brought with it a sense that staff and students had shared aims in learning. Students argued that this enabled them to feel that the learning was collaborative, not just in terms of collaboration within the cohort, but also between staff and students. Being valued for the knowledge and experience they brought to the course boosted students’ self-esteem and facilitated self-validation. Students at Stanage, in general, did not share these experiences, possibly because groups were self-managed and also because PBL did not stand in such sharp contrast to more didactic methods experienced by students at other sites.

Connecting experience through interaction

A third of the students in the study spoke of the way in which learning and reflection within groups had enabled them to make sense of their distinctive experience as learners. For example, through role play and/or discussion within a group, students were enabled to make sense of previous situations, experiences, or issues and concerns that they had not previously understood. Through interpretation of information about themselves and their experiences, obtained from other group members, the individual would learn to develop self-knowledge. Thus in this domain students used the group to *make sense*, through reflection, of their own reality and to confront dilemmas and problems within that reality.

Two themes emerged about the way in which students were enabled to connect their experience through interaction within the group. Firstly, students across the sites used groups to enable them to make sense of the interrelationship of their problem solving processes, prior experience and the new material being learned. Luke at Gimmer, and Bill at Lember, demonstrated the essence of the experience of several students in terms of the way in which they were enabled to make sense of reality through discussion in PBL groups.

Luke argued that the group to which he belonged had gone through a process of transformation since its inception two terms ago, and he felt he had grown and developed through that process. For example when the group first began to tackle the given problems they expected the solutions to be straight forward answers similar to those which would result from a tutorial sheet from a lecture-based component of the course which had a straightforward answer. It was through dialogue that Luke had learned that the process of problem-solving in PBL was more complex and that he could utilise group members to explore different ways of tackling the problem. Luke explained this process:

“I think when you first get the problem, I think that’s when the group works best because out of the four of you there’s bound to be someone where a bit of it clicked and he explains it in normal English and then the others say “oh yeah, yeah and I suppose this means that” and the ball really starts to get rolling.”

‘Explaining it in normal English’ was the process through which the students were enabled to interpret objective reality and together transform it into something which made sense in relation to their individual and collective life-world(s). Each time the group had to work through a process of problem-solving this promoted group cohesion, mutual understanding and personal development.

Bill's prior experience of didactic methods, which brought with it the view that he was expected to learn and cope with difficulties alone, resulted in an initial confusion and subsequent disjunction about the process of learning through groups. Bill could not understand how he could learn through discussing the problem or how students' differing approaches to problem-solving could possibly produce a cohesive group and an effective answer. Yet disjunction experienced as a result of this confusion was enabling because of the way in which he was subsequently able, not only to make sense of the problems and relate them to his prior experience, but also because he was able to facilitate others within the group. This in turn prompted reflection upon the way in which working and learning in groups had been more effective than previous learning experiences. Bill reflected upon the contrast between the didactic mechanical engineering component of the course and PBL:

"Its amazing how the whole group gels together sometimes, I still find that a bit almost puzzling - but in the mechanical course you walked off and sort of locked yourself in a room and I got really stressed out for about a couple of nights. But now we can like get through problems like, ten times as big just if we all sort of work together . . . I hate it when you can't work something out, I think it's really wasteful that you're thinking on a different track or something and there are so many people that come up to you and go 'Well think about it in this way or think about it in that way' and it really sort of builds your knowledge up at a much quicker rate."

Personal reflection, along with reflection and discussion with others, had enabled Bill to explore not only the unresolved set problem, but also his difficulty of being at an impasse in the problem-solving process. Through dialogue with peers he was able to consider how to tackle the given problem and thus integrate that which had been incomprehensible and unfamiliar into his life-world.

Secondly, students used the groups to explore their personal stance. For example a number of students at Stanage tended to utilise groups according to their perceived needs as future social workers and as places in which they could explore different ways of operating within groups in preparation for working as practitioners. Other students, across the sites, tended to use groups to enable them to make sense of issues within practice placements.

Rob and George both saw the group work as a means of helping them to become effective social workers. Their roles within groups reflected this. Rob's commitment to group work was such that he was prepared to sacrifice his own individual work in order to develop himself and become an effective social worker. He argued that it was more important to develop skills and abilities through the group which would equip him for the future rather than necessarily to obtain a high mark by opting out of groups to concentrate on individually assessed work.

However the conflict he experienced between staff expectations about students' self-disclosure in groups and the support provided by staff for students in this process was something which resulted in disabling disjunction for Rob. He explained how as students they were encouraged by staff to self-disclose in groups, yet staff did not provide the appropriate support mechanisms so that students felt safe enough within groups to undertake this process:

"There are times when it feels there's almost a kind of game playing going on, quite risky game playing going on: we're set up into groups, we're encouraged to open out, to share feelings *et cetera, et cetera* without any real sense of there being a safety net. It's like "okay do all that, but set up your own safety nets". And my feeling is if they're going to encourage us to do all that then may be the responsibility is, like in any therapeutic work; it's up to the therapist to actually provide the safety net, and in the same way I'd argue it's up to the staff to do that."

Rob's concern centred around, not only student safety, but also the fact that self-disclosure and personal exploration was useful to undertake in the context of PBL groups since it would equip students effectively for practice in a number of ways. Although Rob had been prepared to undertake the self-disclosure he perceived was expected by staff, the sense of disjunction he experienced when he saw that staff were not offering support to students resulted in him, and other students within his group, opting out of this process. It seemed that staff and students assumed that the student body was self-supporting which it patently was not. Rob argued that in the long term this meant he felt less able to "meddle in other people's lives", since he now felt less equipped to deal with his own life because he had been denied the opportunity to work through his own issues and concerns.

George however, felt that having a sound body of knowledge would make him a good social worker. He initially experienced disabling disjunction within his personal stance because tutors had not supplied him with the information which he had expected. Yet through the group he was able to engage with what was being learned and develop strategies to move to a position of greater integration. For example, he had become frustrated when it seemed to be impossible to cover all the material within a study unit, but by facilitating the planning of the group agenda and encouraging members to research information, George maximised the opportunities for acquiring knowledge.

A number of students spoke specifically about the way in which they had used the groups to reflect upon their encounter with, and difficulties experienced in, practice. Thus they used the group to explore and make sense of personal challenges. This, for many students, resulted in a realisation that they had in fact understood more about the difficulties encountered than they had initially realised. In particular students at Baslow valued the opportunity PBL days offered both to discuss with peers problems which had emerged from practice, and also to learn to work collaboratively, which had not been an opportunity on offer in other areas of the course. Emily captures this experience.

“The whole group was split up while we were out on placement and it was nice to get back together again with the whole group, cos you do feel quite isolated when you’re out on the ward and I was the only student on my ward . . . because it gave you time to mix with your friends and sort the problems out together in a group rather than working alone, so that was good . . . It gave us the chance to sort of explain what we’d been doing, we all exchanged information and that was good cos we learnt a lot from what other people had experienced as well as what we’d experienced.”

This support, which developed across the cohort, meant that students were able to spend time reflecting upon their placements and working through difficulties together. By obtaining a number of differing perspectives about how to address a problem, students were able to return to their placement with a number of new strategies and a greater understanding of their experiences. Thus issues which initially may have appeared complex and unresolvable for an individual became a group project through which group members facilitated each other in making sense of individual concerns.

Students within this domain were offered, through PBL, a means of exploring and developing their own tacit understandings. For example the group was a place in which students were not only able to connect with problems and concerns encountered external to themselves (for example in practice placements, encountering problems or exploring a theory which was new to them) but were also able to make sense of inner inchoate understandings. Reflection appeared to play a key role in this process, and was something which was particularly important for students at Lember, Gimmer and Baslow where it appeared to be absent in lecture-based components of the course.

Transactional dialogue: mediating different worlds

Transactional dialogue is used here to capture the idea that the group serves as an interactive function for the individual. Through the group the individual learns from reflecting upon others' experiences and life-worlds and then relates these reflections back to their own life-world. Therefore individual students, by making themselves and their learning the focus of reflection and analysis within the group, are able to value alternative ways of knowing. Dialogue here is central to progress in peoples' lives and it is through dialogue that values are deconstructed and reconstructed and experiences relived and explored, in order to make sense of roles and relationships. Students within this domain used dialogue and argument as an organising principle in life so that through dialogue they could challenge assumptions, make decisions and rethink goals.

For some students the opportunity for dialogue which prompted progress towards a deeper understanding of values and relationship was a positive experience which brought with it opportunities for personal development. For one student conflict within the group resulted in dialogue becoming a destructive force which ultimately resulted in disabling disjunction. Students at Stanage predominate in this section, possibly because group work was more central to the whole course than at any other site, and possibly because groups were also seen by a number of students as key places in which significant learning took place. However it might also be that the focus on personal reflection and change within the social work profession as a whole may have been influential in fostering change through dialogue in a way not in evidence, nor seemingly in existence, within other professions in the study.

Douglas, at Lembed, and Olive, at Stanage, demonstrate different ways in which dialogue within the group had enabled them to learn to value the experiences and life-worlds of others, and through appreciating them, to reflect these new perspectives back into their own life-worlds.

For Douglas, learning to work in a group was not just about learning how to learn in a group environment, but also learning about democracy, loyalty and effective team work. He learned that his focus had to be the achievement of the task with a spirit of cooperation, rather than putting his and other peoples' individuality before the achievement of the task. Although in terms of the course he realised that the aim was to solve the given problem, he saw learning in groups in the broader context of offering the opportunity to understand and explore other people's perspectives. Douglas talked about this in terms of "learning to exist with people" and "choosing to get on with them".

For him learning with and through others was something which required effort and had to be worked at, and it was only through this that he could hope to understand other people's perspectives (and life-worlds).

Dialogue offered Douglas the opportunity to explore differing ways of knowing which would ultimately offer him a deeper understanding of the way in which roles and relationships affected one's effectiveness as an engineer. For Olive it was through reflecting on her experiences of other peoples' perspectives within the group that empowered her to adopt different reasoning strategies than those she had previously used in order to deal with unfamiliar situations. Through reflecting upon both the experience of peers, and the way in which she had integrated the theory of that experience and knowledge into her own life-world, she was enabled to confront and make sense of dilemmas in practice.

Olive found that problem scenarios she had encountered on campus and explored within the context of the group had equipped her to deal with similar issues on placement. Olive's background of working in the probation service had furnished her with a wide variety of experience, but little in the realm of working with families. She explained the way in which working through problems in the context of the group had helped her to supply practical advice to a client which was based on strategies and guidance she had gained through the group:

"I went on placement, working with families, because I've never done that before. I've worked with offenders and gone into their homes and talked to their wives and seen the children and everything else. But what I'd be looking for, what I'd be thinking about was totally focussed in a different way . . . because some of the scenarios that I actually had coming through the door, (*on placement*) I actually dealt with, I'd actually done, I'd actually done somebody who'd been beaten up by their husband and what you would do. And I found that incredibly helpful, you know. And I actually had some of the, not answers, but suggestions about where she should go from there. And that was helpful. I had good practical stuff and that came straight from a study group, not from a facilitator but from people who've worked in that field."

She had been enabled through the group to adapt her public role as she encountered for herself a reality experienced by others. It was through dialogue within the group that she was able to relate to the life-world of a client through a mediation between her life-world, the life-worlds of peers and the objective world.

Thus for Douglas and Olive transactional dialogue was encapsulated in the process of learning to engage with the life-worlds of others and through reflection relate other life-worlds with their own. It was through this relatedness that they were able to challenge assumptions, make decisions and adopt new strategies and ways of knowing.

Ian, however, offered a different perspective. As someone who came to the course from community work, he was a social work student who saw the group as a place where, through dialogue, he had the opportunity to encounter new and different perspectives with regard to the nature of social work practice. He also saw dialogue as an opportunity to “debunk myths” about the nature of community work. So whilst Olive and Douglas discovered and developed through the *process* of dialogue within groups, Ian anticipated dialogue as an opportunity through which values could be deconstructed and reconstructed. Having explained how he felt that the groups had enabled him to get a more balanced view of social work practice through the perspectives of peers, Ian illustrated how the group process had enabled him to challenge a number of issues about which he had strong views:

“I don’t think you can really truly be objective to be able to understand the subjective approach, the subjective side of yourself. The way you actually are is being very subjective about some issues. So in some ways these group sessions should be debunking myths about social work practice and social work issues, and so you understand a bit more clearly what the issues are involved.”

Understanding himself, through interaction and through dialogue, was key to Ian being able to reconstruct his perspective about social work practice. The challenge of other perspectives from other life-worlds had enabled him to incorporate a wider view of social work into his own life-world and see argument as central to his own development.

The centrality of dialogue within the group had been an issue which Clare had initially valued and seen as something which was personally empowering. However, reflecting back over two terms Clare pointed to two issues which had resulted in disabling disjunction which, in the long term, had prevented her from being able to value other forms of knowing through interaction. Firstly Clare spoke of the way in which an aggressive personal challenge within the group between one individual and another had resulted in some group members opting for a position of silence. Group members chose silence because dialogue presented too much fear and challenge. Although Clare did not feel silenced, this experience led her to see the group as something which could be destructive and she consequently opted to reveal less of her personal concerns within the group, and to use the group less as a focus for reflection and analysis.

The second issue Clare raised was the relationship between facilitators and the PBL group. At Stanage, in order to foster student autonomy and to be economical with human resources, the facilitator did not attend all the meetings, but would usually be present at the beginning and end of each unit. For many of the groups at Stanage the dynamics of the groups changed when the facilitator was present.

Clare argued that because tutors were in a position of power -because they marked students' work- this inevitably affected the way in which students perceived facilitators when they attended group meeting:

"There have been some issues around that, how people's work has been marked, and the sort of feedback that we're getting which in some cases has been very sparse, and in other cases has simply been not terribly constructive at all. And that's been quite devastating in a few cases, and then you feel the power that the staff still have. I mean I think that we still feel that we need approval . . . and it feels in the study groups, the way they're set up and facilitated and so on that we're being bolstered and that what we have to offer is very good, and you know we've got a lot to offer and that's really positive. But in other respects it feels like you've really got to work to earn their respect."

The need to gain approval from tutors had also resulted in disabling disjunction for Clare. Although she had felt affirmed in some respects by tutors, simultaneously she felt she needed to resort to gaining approval, thus earning tutors' respect and consequently being able to value herself and her own opinions. Clare's transition away from transactional dialogue had emerged through disabling disjunction which had resulted from seeing other students silenced by peers, and from having her learner identity and prior experience challenged by staff. She felt she was no longer able to use dialogue to value alternative ways of knowing. Essentially negative experiences of the power of dialogue had resulted in a shift away from a sense of integration and an increasing confusion about roles, relationships, values and assumptions.

Clare's experience also reflects confusion experienced by staff and students across the sites emerging from perception about the facilitator role. In this study staff in general constructed their espoused theory of facilitation according to the type of facilitation which they felt would promote the integration necessary to effect their idealised form of PBL. Staffs' theorised model of facilitation almost always differed from the role they undertook in practice, both by their own admission and from the accounts of students. Students' perspectives within this domain (captured by Clare's experience) demonstrate the way in which staffs' espoused theories and theories-in-use resulted, at times, in disabling disjunction.

Summary

Interactional stance encompasses the relationships between students within groups, and staff-student relationships at both an individual, and a group level. The way in which one student may theorise about another student within a group setting reflects his/her interactional stance as does the way in which students act and speak as they interact with one another. Interactional stance is also a notion which encompasses the means by which students engage with, and attribute meaning to, the processes which occur in groups. It is subsequently through reflection upon these processes that students make sense of their own learning. Thus students used the group process to make sense of, and challenge, issues connected with identity which they could then relate to the wider social context in which they live and work.

Conflict, which sprung from differing expectations and agendas about both the nature of learning within the group and the roles of group members and facilitators, emerged as something which appeared to prompt transitions in students' lives. Transitions such as this often emerged through disabling disjunction resulting in a shift away from integration. Although the facilitator often affected the students' learning experience, students also constructed meanings of an expected facilitator role according to their individual notions of that role, which also affected their learning experience. Students spoke of conflict between the role expected of them by others within groups and their own perception and expectation of themselves as a group member. Despite the unease, dilemmas and conflict experienced, the majority of students valued working in groups.

Problems inherent within both groups and the facilitator role seemed to be located within the larger context of the unease associated with self-directed learning programmes for both staff, students, practitioners, professional bodies and institutions. In this sense the groups, and the facilitator role within these groups, could be seen as a microcosm of broader issues relating to the implementation and integration of PBL within professional courses in higher education.

Part 3.

Chapter 9. Discussion

From rooks, pawns and bishops

Introduction

Gergen (1987) argues that the discourse of relationship represents a “vastly unarticulated subtext”, and suggests that in articulating this subtext it is

“as if we have at our disposal a rich language for characterising rooks, pawns and bishops but have yet to discover the game of chess.”

(Gergen, 1987: 103)

PBL refers to a wide variety of practices underpinned by differing ideologies and purposes. This has led to different meanings and understandings of PBL. In the course of reviewing the literature questions emerged relating to the nature of group work, assessment and the role of the facilitator in PBL programmes. These differences seemed to reflect a diversity of opinion about how PBL might be understood. However as this study progressed I began to see that this diversity brought with it a conceptual richness which reached far beyond elementary concerns about what constituted PBL and what did not, and whether groups should comprise six or eight members. Thus issues such as these became, for me, the rooks, pawns and bishops - disparate pieces in a game of chess.

In this chapter I explore three interrelated areas in the three sections which follow. The first section documents the process and progress of my journey through this study and presents the way in which the particular concepts of the model of Dimensions of Learner Experience emerged. The second section examines in depth the model of Dimensions of Learner Experience, firstly through an exploration of the notion of learner identity and subsequently through the presentation of a case study. The final section presents a number of paradoxes which emerged from this study, and explores possible reasons why PBL appears to set up the possibility for disjunction in students' lives.

Section 1: Research as Personal Process¹

Reason and Marshall (1987) argue that research makes a contribution to personal development which subsequently enables students to understand their life processes. This section comprises three components, all of which in some way set this research in context. Seen chronologically this section as a whole documents a number of personal transitions which took place during the research and presents the development of my own learner identity². Firstly, I present the way in which, through this research project, I was forced to reconsider a number of my taken-for-granted assumptions about the purposes of higher education, my idealised notions of learning and my perspectives about the value of self-direction in learning.

¹ Reason and Marshall (1987)

² This concept is explored in detail in Section 2 of this chapter

Secondly, I explore the relationship between my own story and the research; the realisation that the research topic was unintentionally a bid for personal development. Finally, I present the way in which the concepts particular to this study arose from both my own story and the stories of those with whom I worked.

Revisiting values and assumptions

When I began this study, essentially when I first encountered PBL in 1986 as a tutor, I believed that difficulties experienced within PBL programmes both in my own experience and as documented in the literature (Barrows and Tamblyn, 1980; Benor, 1984; Thompson and Williams, 1985) were straightforward and solvable. Although I, along with both staff and students, had encountered difficulties in adapting to PBL, I was convinced that it was a progressive learning method which offered students circumstances through which they might develop competence in problem-solving along with skills and abilities which would equip them for the world of work. It seemed to me that students were offered, through PBL, opportunities to own their learning experiences and develop independence in inquiry, opportunities which many, including myself, had been denied through didactic methods of learning.

I believed the solution to the difficulties being experienced lay in resolving concerns relating to particular issues such as assessment, group work, and the relationship between PBL and other components of the curriculum. This perspective not only reflected my own naive understandings of PBL at that time but also particular issues about my own learner identity. In short I felt that what was required was a means of being able to say that 'if assessment is the concern then here are ten different options which will offer ways of rectifying it'. This perspective was also reflected through my belief at the beginning of this study that I could explore broad categories relating to the use of PBL in other courses in higher education such as:

- The role of the tutors in PBL

- The tutor's influence on the quality of the learning experience

- The complexities students experienced through working and learning in groups

- Staff and students' understandings about the motives for using PBL

- The factors which need to be considered when introducing PBL in terms of students' prior experiences and learning styles.

In fact, in this study, the way in which PBL was played out in practice was less coherent, more varied and more complex than the literature and my experience implied. Instead of being able to discover findings which supported or opposed the theoretical promises PBL claimed to fulfil (Barrows and Tamblyn, 1980), I found four very different courses using distinct models of PBL with differing professional and political emphases. This challenged me to consider not only my own idealised notion of PBL but also my beliefs about learning and 'being' a learner within higher education.

This scrutiny of my own values and assumptions centred around three key concerns. Firstly there was my own particular framework about the purposes of higher education in society educationally. For although it is unfashionable today to admit to being a liberal in educational matters (Barnett, 1990), my own experience of learning, which had held real meaning, occurred in a context in which knowledge was valued for its own sake. Yet in the context of higher education where I was undertaking this research there was a shift taking place. It was a shift away from liberal education towards accountability and market related values. I felt torn between a view of an autonomous system of higher education whose focus was to preserve and extend society's dominant culture, and a form of higher education which was more vocationally relevant. The latter form was increasingly accountable to the public and State, with an emphasis on the development of personal qualities and skills for life and work. However it also put issues of student learning on centre stage in new ways.

Secondly, I had to confront and explore my idealised notion of learning. My own experience of learning as a pupil had been one in which, in general, I was expected to learn facts and right answers in order to pass examinations. I could not connect with this notion of learning and was thus seen by myself and 'the system' as a failure. The discovery of learning which held meaning was to emerge years later during a course in which the subject matter and my own experience and forms of knowing were validated with and through others. This led to a personal valuing of what I brought to the learning situation. Thus the disjunction I experienced between my prior experiences of knowledge, which was external to myself and the valuing of knowledge which connected with myself, created a huge shift, in essence disjunction which was enabling and which meant that I subsequently saw all forms of learning of this type as developmental. Yet it was through undertaking this study and exploring assumptions in the literature relating to PBL and later adult learning that I began to see that learning, and in particular disjunction, was not always something which was positively developmental. Students' experiences echoed issues emerging in the literature on student learning. Their stories gave weight to Weil's conclusions that disjunction can set up the possibility for miseducation and that the overall sense of identity of the learner can be fundamentally undermined (Weil, 1989). Students' stories also affirmed the validity of Tennant's (1986), Brookfield's (1985b) and Mezirow's (1981; 1991) criticisms of notions of adult learning which offer naive understandings of learning processes, and which argue instead for attention to the complex interactions and interrelationships which take place in learning.

These perspectives challenged my own taken-for-granted insights about learning and forced a reappraisal of my own assumptions. In particular I came to realise, through this study, that there were a number of contradictions concerning the nature of autonomy and self-direction. This brings me to my third concern.

The experience of encountering freedom through self-direction in my own learning experience resulted in an almost unquestioning belief that self-direction was always of value in learning. This ideal was challenged through encountering conflicting understandings of self-direction which seemed to produce learning experiences for students characterised by disjunction for some which was enabling but for others was disabling. For example, some students opted for individualism and learning in isolation which often resulted in surface learning. Alternatively students could become isolated in learning through self-direction and experience disabling disjunction which occurred through the expectation by students, tutor or both that self-direction would be empowering when it was not. I began to believe that, as Tennant argues, Knowles' assumptions about adult learning are shrouded by myths such as:

“the myth that our need for self-direction is rooted in our constitutional make-up; the myth that self-development is a process of change, towards higher levels of existence; and the myth that adult learning is fundamentally (and necessarily) different from child learning”

(Tennant, 1986: 121)

This in turn forced me to question my notions about the the extent to which students could be enabled to make sense of their own inchoate understandings through a method of learning (PBL) in which self-direction and personal autonomy were espoused. Yet PBL also appeared to set up the possibility for miseducation and disjunction. This was because when implementing PBL staff made explicit their ideological claims regarding notions of self-direction, autonomy, the learning base of the student and their understandings about what constituted learning which took place in a relevant context. This resulted in contradictions arising for students when these claims were not played out in practice.

Although at the beginning of this systematic inquiry I realised that PBL posed a number of fundamental challenges to traditional disciplines, staff and institutions in higher education, I had not accepted that the nature of the challenge was related to something far more complex than broad simplistic categories (as above p.181). I was unable to understand that the challenges were connected instead with important questions about the centrality of learner identity within PBL, and the way in which PBL was played out organisationally in the context of particular relationships and settings.

I had also not realised that my own learner identity was something which was central to this study and to my own concerns about students' struggles in adjusting to independence in learning. Yet as I moved forward through what I now see as my own transitions in learning, I began to see and make sense of my own 'Dimensions of Learner Experience' and my own stances and domains. I realised that the key to understanding PBL in the terrain between espoused aims and actual practice were not in fact the rooks, pawns and bishops (of assessment, group, work . . .) but rather lay in these more complex terrains.

A game of chess: the emergence of concepts

The process of reflecting upon the way in which different concepts emerged and were developed throughout the project became a means of enabling me to locate my self within it. This section examines the way in which these ideas emerged from the data and were subsequently developed.

The framework of Dimensions of Learner Experience evolved through the subtleties of the struggles conveyed through the stories of participants (including myself) in this study. The notion of stance evolved through a realisation that the way in which students saw themselves was also central to the way in which they learned. Salmon's concept of personal stance (Salmon, 1989) challenged me to consider the ways in which students 'placed' themselves in relation to material to be learned and to others who were part of that process. This realisation enabled me to see that students did not just 'have' a personal stance, it was something which they 'constructed' and which related to issues of identity, relationship with others and the learning context. The idea of personal stance seemed to offer a way of enabling me to understand how I, and others, made sense of our past, present and future selves in the context of being learners.

Thus it seemed that learner identity, learning context and learning 'in relation' (Weil, 1986) were all issues which seemed to become explicit through PBL, (although Weil's research was not in the field of PBL). Yet personal stance did not appear to capture the whole learner experience of PBL. I felt there were other dimensions which contributed, which were somehow linked to learning context and learning 'in relation'. By exploring what students said oppositionally I began to see an emerging framework of the way in which students saw themselves. For example students spoke of 'not getting information', 'not being part of the group', 'not being very bright'. Through encountering this way of speaking oppositionally I was forced to consider the images students brought with them to the courses. Images of PBL, teaching, learning, knowledge, themselves, peers, staff . . .

It was through an exploration of these images that I began to see that I had not only to portray people and their lives as a central theme but also to examine the way in which identity was talked about and theorised through dialogue:

“The study of narrative is the study of the ways humans experience the world. This general concept is refined into the view that education and educational research is the construction and reconstruction of personal and social stories; learners, teachers and researchers are story tellers of their own and other’s stories”

(Connelly and Clandinin, 1990a: 2)

Participants in this study, it seemed, related to PBL through different dimensions of themselves. Thus Dimensions of Learner Experience in this study came to be used as a heuristic device to make sense of personal, pedagogical and interactional concerns within a single framework. As I interpreted the data particular students across the sites appeared to be ‘standing’ in different ‘places’ in relation to personal, pedagogical and interactional concerns. Hence the notion of ‘stance’ emerged.

I then began to explore the notion of places and ‘placing oneself’ which initially seemed to relate to the idea of taking up a position towards something. Yet the notion of position seemed to equate too closely with Perry’s Scheme of Intellectual and Ethical Development (Perry, 1970) whereby a position may be seen as a place from which to move forward in a developmental sense. I felt I needed a concept which captured the idea that to be in a particular place within a stance was not to be judged developmentally, and was not to be seen as one position necessarily being better or higher than another. This concept needed to embrace the idea of space. It needed to be a situation in which movement away from, or towards, integration was possible but also one in which movement did not necessarily have to take place *across* domains. It could take place either within or across domains, each was a possibility. Thus ‘domain’ captured the idea of both space and of a place in which one’s life-world may be explored. Figure 3 demonstrates the relationship between these concepts within the overarching concept of Dimensions of Learner Experience:

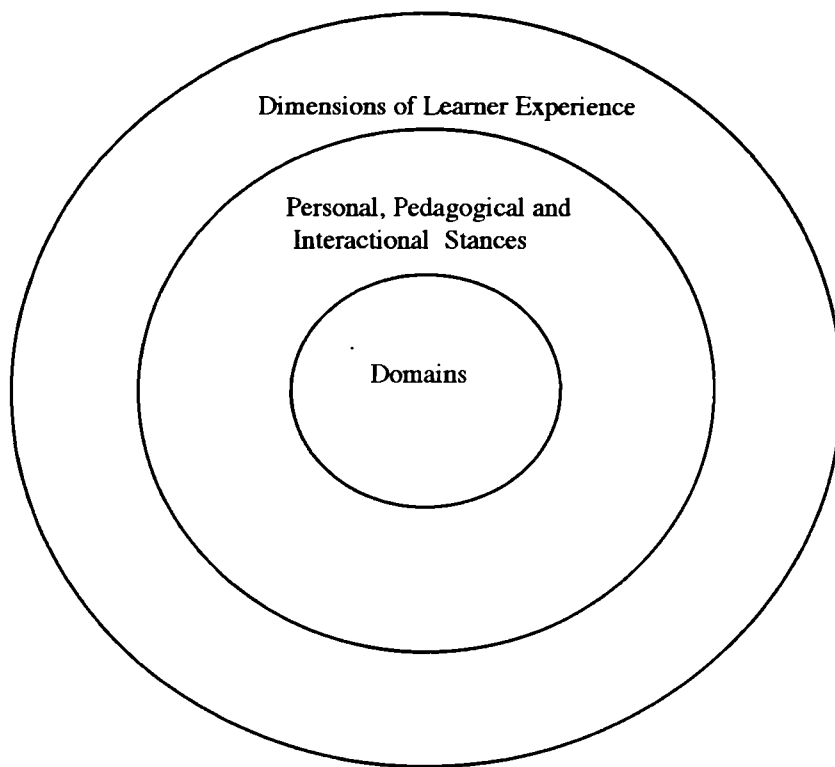


Figure 3. A framework for making sense of Dimensions of Learner Experience

Space and opportunities to think, be, move or stay all seemed to occur through elucidating the assumption that self-direction, independent inquiry and reflection upon one's life-world is worthwhile and to be valued within professions and academic institutions. Weil argues

“Space for learning implies opportunities to reflect on individual and collective goals, within the boundaries and possibilities of a particular programme or subject area. Enabling teachers and groups can go a long way to counteract the impact of disjunction arising from forces that seem outside the bounds of one's personal agency, and to create an oasis of integration in which the experience of other kinds of disjunction can be made sense of and more effectively managed”

(Weil, 1989: 140)

In this study PBL seemed to offer students opportunities whereby oases of integration in one stance might be the means by which disjunction in another stance was managed effectively. This in turn may affect the sense of integration within another stance.

Thus it seemed that, beyond the differing practices of PBL that I had encountered in this study, the distinctiveness of PBL could be captured through a particular story which emerged from the data, namely Dimensions of Learner Experience, and in which learner identity was pivotal. The next section explores the notion of learner identity and examines issues which affect students' ability to construct (and deconstruct) their learner identity. It also presents a case study of one student's experience of PBL and the ways in which PBL seemed to be a challenge to his learner identity.

Section two: Dimensions of Learner Experience

The purpose of this section is to examine in detail the framework of Dimensions of Learner Experience. This will be undertaken in two ways. Firstly the concept of learner identity will be explored since it is seen to be key to the overarching framework of Dimensions of Learner Experience. Secondly a case study will be presented which explores some of the issues emerging from this study including the way in which PBL appeared to set up the possibility for disjunction.

Learner identity as dimensions of difference and unity

Learner identity, a term originally coined by Weil (1986), is used here to express the idea that the interaction of learner and learning, in whatever form, formulates a specific form of identity. Learner identity is not to be seen as a stable entity, nor as something people have, but something they use to make sense of themselves in relation to other people and the learning contexts in which they operate. Data revealed that PBL appeared to prompt, for some students, through enabling and disabling disjunctions, the construction, exploration, transformation of, and reflection upon, their learner identity which resulted in transitions within personal, pedagogical and interactional stances.

Bernstein (1992) believes that through their experiences as students, individuals within higher education are in the process of identity formation. He sees this process as the construction of a pedagogic identity, which will change according to the different relationships which occur between society, higher education and knowledge. Thus pedagogic identities are characterised by the emphases of the time. For example in the traditional disciplines of the 1960s, students were inducted into the particular pedagogical customs of those disciplines, whereas pedagogic identities of the 1990s are characterised by a common set of market related, transferable skills. The difference between learner identity and pedagogic identity is that, whilst pedagogic identities are seen to be identities which arise out of contemporary culture and technological change, learner identities focus upon the transcendence of structures embedded in higher education. Thus in developing learner identities, some students are enabled to shift beyond frameworks which are imposed by culture, validated through political agendas or supplied by academics. They are facilitated in developing for themselves, possibly through learning such as PBL, the formulation of their own learner identity rather than having it formulated entirely by imposed frameworks and systems. Learner identity of this sort would seek to encourage students to see disjunction, of whatever sort, as central to learner experience.

Shifts in learner identity connected with challenges to 'meanings' both within and across the stances, often resulted in disjunction. Transitions did not necessarily promote development towards a 'higher level' of existence. Rather students became critically aware, through PBL, of new learning needs which arose from the challenge to the dimensions of their current learner experience. This awareness seemed to result in the adoption of a different domain or a different place within the same domain, which held different meanings from the previous position they had taken up. Thus the notion and experience of transition, emerging from disjunction, appears to prompt an interrogation of traditional perspectives of learner, learning, learning context, professions, institutions . . . In practice this seemed to be played out in two ways across the sites: firstly, students' ability to construct a voice in relation to their learner identity and secondly, the way in which students used PBL groups for their own process of identity building.

Constructing a voice

Barnett (1994) argues that higher education is necessarily a process of becoming and argues for a process of education in which the student can be 'released into herself' Barnett sees this 'being released' not in terms of empowerment, self-realisation or emancipation, but in terms of constructing "their own voice". What Barnett essentially appears to argue for is the development of a learner identity through which the learner is able not only to construct (and presumably deconstruct) and articulate her own perspective in her own way, but also to be able to defend this perspective before peers and authorities.

Belenky *et al* (1986) use the metaphor of voice to encapsulate the way in which women in their study made sense of their experiences as learners. These women spoke not of constructing a voice, but of 'gaining a voice', to depict intellectual and ethical development whereby the development of a sense of voice, mind and self were interlinked. The ability to 'construct a voice' for some, or to 'gain a voice' for others, encompasses the way in which students across the sites spoke of their own disjunction and the transitions which often ensued. Students in this study were not just enabled through PBL to construct a voice. Constructing a voice was a dynamic process through which construction, deconstruction and reconstruction occurred. For example students could 'speak for themselves' in some circumstances and not others, yet there was not always a conscious realisation of voice (or lack of it). Students perhaps were able to speak within their peer group and PBL group but were not always able to interact with tutors who they saw as experts. For students in this study the ability to articulate their own confusions around disjunction often resulted in a shift towards a greater consciousness and/or understanding of their learner identity.

Identity building through the group

Learner identity, and changes within it, which often emerged through enabling or disabling disjunction, did not seem, overall, to occur in isolation. PBL appeared to prompt, for some students, a form of identity building through the group. Kolb (1984) sees experiential learning as a transaction between person and environment, and between different modes of learning. Weil (1986) articulates a relationship between learner identity and learning context. What was apparent in *this* study was not only transactions which took place across stances and domains but the significance of transactions *between* people within the learning context. It was often these latter transactions, in which dialogue was central, which became the arena for recognising and developing learner identity. Wildemeersch argues

“Through face-to face interaction within these groups (*of generalised and significant others*) we continually confirm or change our private and public roles and the way we understand reality. The groups to which one belongs, as they are composed of several subjective realities, represents segments of objective reality which are relevant to one’s subjective understanding of life”

(Wildemeersch, 1989: 64)

Students’ reflections upon their own roles within groups, the roles of other group members and the relationship *between* group members seemed to force individual students to consider the way in which they related, and wanted to relate, to others. It also prompted them to question the extent to which they did and did not belong to the group. This process in which learning was central resulted, for a number of students, in a challenge to learner identity through self-doubt and self-discovery. Thus each student’s experience of PBL was bound up with individual and personal concerns. In order to exemplify the depth and complexity of this process a case study of Jack’s (a student) experience is presented, particularly since:

“A society knows itself most clearly not through the allegedly neutral news media or government propaganda or historical records but through the biased eyes of the artist, the writer. When that vision is tempered by heaven and hell, by an honesty of the intellect and gut, it allows the reader and viewer to safely enter worlds of brutal truth, confrontation and redemption. It allows the public as both voyeur and safely distanced participant to say ‘Aha I know that man. I know that woman. Their struggles, their temptations, their betrayals, their triumphs are mine.’”

(Fowler 1994: 251)

Jack's story was chosen for a number of reasons. Firstly because I felt his story captured a whole series of struggles which were at issue for a variety of students across the sites. Secondly Jack's story demonstrates ways in which organisational systems and structures can undermine students' own desires to experience learning which is significant, causing them to adopt strategic approaches to learning. Finally I surmise that, at a level of subtext, I chose Jack because of the ways in which his learner story mirrored issues and concerns which related to my own.

In order to put Jack's story in the context of Dimensions of Learner Experience a series of figures will be displayed, the first, Figure 4, will provide a diagrammatic overview of the stances and domains. The second, Figure 5, exhibits students' positions across domains. The third figure, Figure 6, demonstrates Jack's position within each of the stances at first interview and then at a later date. The particular forms of disjunction which resulted in transitions will then be discussed.

Personal stance	Fragmentation	Discovering my self	Defining my future self	Placing my self in relation to my life-world	Replacing my self: knowing the world differently
Pedagogical stance	Reproductive pedagogy	Strategic pedagogy	Pedagogical autonomy	Reflective pedagogy	
Interactional stance	Ethic of individualism	Validated knowing through 'real talk'	Connecting experience through interaction	Transactional dialogue	

Figure 4. Diagrammatic representation of Dimensions of Learner Experience

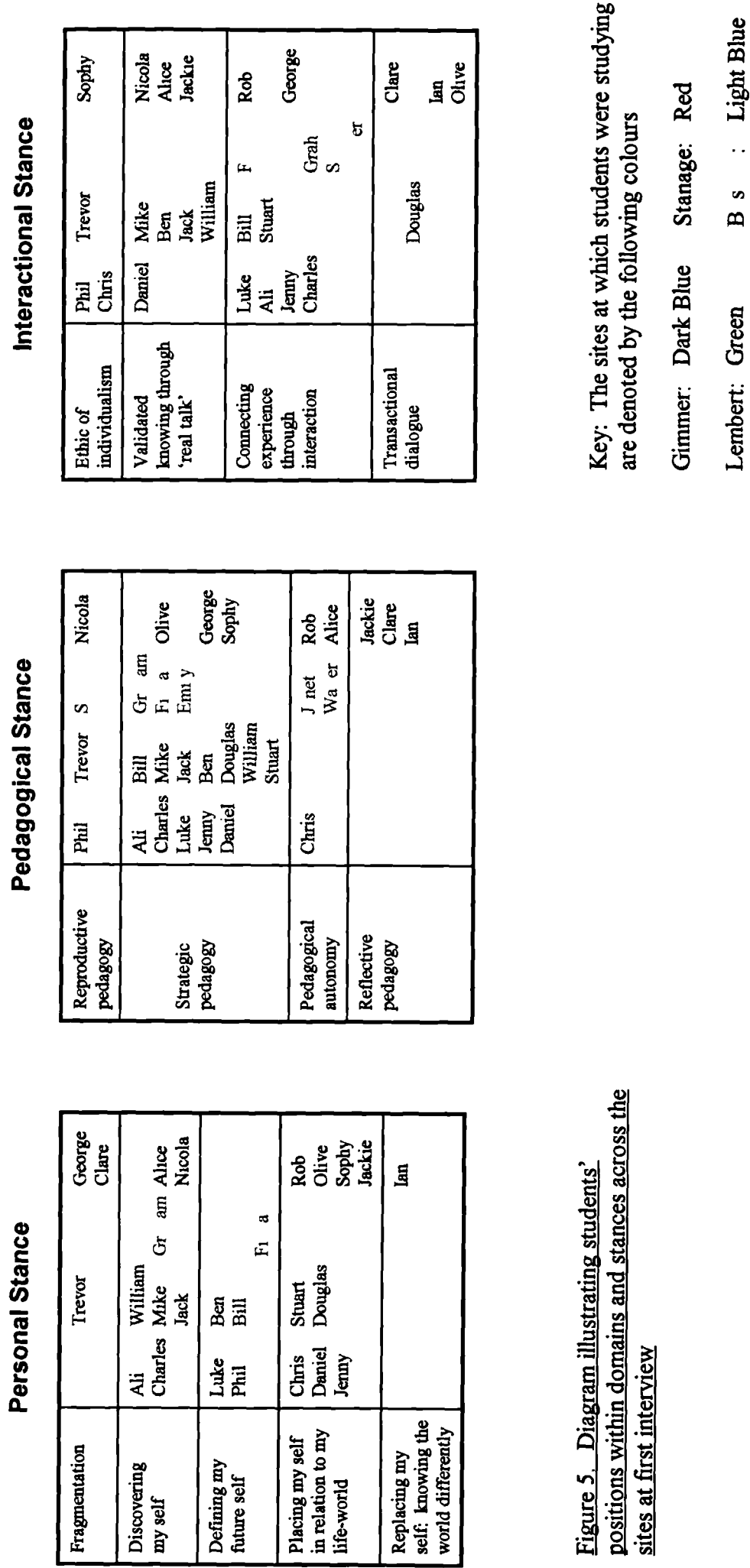


Figure 5. Diagram illustrating students' positions within domains and stances across the sites at first interview

Jack (first interview)

Personal stance		Discovering my self			
Pedagogical stance		Strategic pedagogy			
Interactional stance		Validated knowing through 'real talk'			

Jack (6 months later)

Personal stance		<div> <div>→</div> <div>Enabling disjunction</div> <div>→</div> </div>			
Pedagogical stance		<div> <div>←</div> <div>Disabling disjunction</div> <div>←</div> </div>	Strategic pedagogy		
Interactional stance		<div> <div>←</div> <div>Disabling disjunction</div> <div>←</div> </div>	Validated knowing through 'real talk'		

Figure 6. Diagrammatic representation of one student's transitions.

Jack's paradox(s): the story of PBL as a challenge to learner identity(s)

Jack had been an apprentice for four years after leaving school at 16. He did an ONC in mechanical engineering and worked his way up from fitter to manager. He chose to undertake the Automotive Design Engineering (AMD) course at Lembed because his hobby was tinkering with cars and he wanted to integrate his interest with skill and knowledge of engineering. Now in his late twenties, coming straight from industry into higher education, he felt immediately able to relate to the way in which the material was taught because he was expected to solve design problems.

When I first met Jack his story was characterised by enthusiasm for PBL and appreciation of the way in which learning through PBL had enabled him to find meaning in the material he was expected to learn. Jack's prior learning experiences had led him to assume that learning comprised rote memorisation of facts which he felt bore little relationship to both his own interests and the world of work. The difficulties Jack experienced in learning through didactic methods resulted in a belief that it necessarily was he who was unsatisfactory rather than the system. His experience of PBL challenged Jack to revisit his perceptions about his own learning which resulted in an overall sense of disjunction. This was initially disjunction which was enabling and occurred across his personal, pedagogical and interactional stances and will be explored in detail in the sections which follow.

Enabling disjunction and the development of learner identity

Jack had experienced enabling disjunction in all stances when I first spoke with him. This disjunction seemed to emerge because of the way PBL appeared to set up the possibility for disjunction in ways which Jack's experience of didactic methods of learning did not. For example, during the ONC course when Jack did not understand complex equations he "just switched off", whereas in PBL he was challenged to understand and utilise complex equations in the context of designing a car. For the first time Jack connected his experience with complex equations. The way in which the learning which occurred through PBL was designed to meet with students' interests and motivations set up the possibility for disjunction, which challenged not only Jack's notions of learning but also his notions about what counted as knowledge.

Jack's learner identity could be seen in transition as he sought to make sense of himself in relation to other people and the learning context. The disjunction which Jack experienced through PBL prompted him to deconstruct, explore and transform his learner identity, and thus disjunction became central to his transformation process.

Personal stance. Jack's original domain: Discovering my self

'Discovering my self' is a domain in which students defined their personal stance in terms of self-discovery. For a number of students PBL had offered a learning situation in which they had felt able to promote their own development. This for many was the beginning of a journey towards an understanding of their own personal stance. The existence and nature of support available on the course, from staff or students, appeared to be key to the extent to which self-discovery was experienced as positive or negative.

Jack identified with the "truth claims" (Barnett, 1990) which tutors posed because they were something of which he had personal experience. Receiving support from staff and encouragement to evaluate the knowledge with which he was presented resulted in the disjunction he experienced within this stance as being one which was enabling. Jack experienced support from staff who asked for his opinions and advice whilst simultaneously encouraging him to question and explore issues for himself. Initially Jack was stunned by this approach and felt uneasy and disoriented, possibly because his experience of didactic teaching and learning experiences had silenced him into thinking that his prior experience was not of value. Through this support he began to discover that learning was not just about receiving information, it was about taking responsibility for his own learning, evaluating material presented and entering into what he had learned in a way which was unique to him. Jack saw learning as a means of understanding both himself, and content and process, in relation to the world around him. It was through PBL that he was enabled to form a personal view about the validity of knowledge provided by lecturers.

Pedagogical stance. Jack's original domain: Strategic pedagogy

Strategic pedagogy captures the notion that students adopt the perceptions of staff expectations of learning with the anticipation that it will be the most effective means of passing the course. Thus students buy into the academics' agendas and dominant perspectives and adapt their learning to that which they perceive is expected of them. Jack, like other students within this domain, saw learning as being strategically linked to the world of work and adopted strategic reasoning rather than critical reasoning in order to ensure that he passed the course.

Jack adopted strategic pedagogy because it enabled him to develop strategic problem-solving abilities which he felt was an effective and comprehensible way of learning. Although he recognised that the problems he was expected to solve essentially differed little from the "maths and number crunching" undertaken on a mechanical engineering course, he valued the step-by-step approach to problem-solving tutors required him to adopt for two reasons.

Firstly, he appreciated that the learning on the AMD course occurred in a mock industrial setting to which he could relate. Secondly, he discovered that learning through the step-by-step approach to problem-solving was something he was able to execute in a way which he had found impossible in previous learning experiences.

Interactional stance. Jack's original domain: Validated knowing through 'real talk'
Validated knowing captures the idea that through the experience of being heard within a group, and being valued by other group members, individual students learn to value their own knowledge and experience. Within a group where each member is valued and the optimum setting is created for ideas to grow, individuals feel empowered through affirmation. Prior experiences of the individual are valued as a resource for learning by other group members.

Jack experienced enabling disjunction within this domain because of the contrast he experienced between PBL and learning in isolation on the ONC course. At Lemberg learning in the context of a group had enabled him to value his prior experiences for the first time. The way in which his experience was valued by other group members and seen as a resource for further learning resulted in heightened self-esteem. This in turn enabled him to review and reflect upon his individual learning aspirations both within and beyond the group.

Jack's Transitions

Transitions which were prompted by disjunction occurred in three key areas for Jack. These areas were not only interrelated but also had repercussions which overlapped across the stances. In many ways these areas were paradoxical in nature, for example issues which initially prompted enabling disjunction sometimes subsequently resulted in disjunction which was disabling. The areas were as follows:-

- The expectations of, and actual encounter with, the learning context which forced a reappraisal of the relationship between himself and what he knew
- The nature of learning, support and dialogue within groups
- The expectations and experiences of notions of learning, knowledge and problem-solving, and what was allowed and disallowed within these frameworks

In reality these issues were played out through the three different stances in the following ways.

Personal stance: from Discovering my self to Defining my future self

Enabling disjunction which Jack experienced within his personal stance initially resulted in a shift towards learning which held real meaning for him. As he progressed through the course he became increasingly integrated in this domain which prompted a shift into 'Defining my future self'. Jack thus began to position himself in the learning context in terms of his view of himself as a future professional. He sought to understand himself and the learning he was undertaking in terms of a perceived future role. Yet it was not only support from staff which produced this transition, it was enabling and disabling disjunction within other stances. For example support from peers and heightened self-esteem gained through the group enabled him to reevaluate his learning goals. Within strategic pedagogy his dissatisfaction with staffs' notion of problem-solving challenged him to adopt strategic methods which would enhance his chances of gaining a good degree.

Pedagogical stance: away from a sense of integration within Strategic pedagogy

Jack experienced disabling disjunction within this domain. Firstly he found that even by buying into the academics' notion of problem-solving he was not always enabled to develop himself and explore areas which he valued. Application and understanding were issues which Jack felt were key to being able to apply his knowledge. They were skills which had enabled him to learn to solve problems effectively by using his knowledge in a way in which he had been unable to do upon the mechanical engineering course in the first year. However, now in the final year, he felt angry when tutors imposed their own strategies upon students. He believed he had not been offered the opportunities to develop his problem-solving capacity fully.

When I first spoke with Jack he did not realise that this step-by-step approach, which he had bought into, failed to encourage him to think critically and thus recognise that what counted as truth could be viewed from a number of perspectives. His viewpoint and experience demonstrate that PBL on this particular course was encouraging students to operate in the realm of "operational competence" (Barnett, 1994):

"The form of critique demanded by operational competence is, as just implied, a form of reflection intended to bring about greater effectiveness. Critique works within a horizon of utility; that is to say, critique is tolerated provided it points towards changes with a use-value which are located within the relevant boundary conditions"

(Barnett, 1994: 165)

The relationship between the automotive design course, industry and staffs' espoused desire of producing designers who are inventive, motivated, imaginative, attuned to market concerns, and competent to practise before arriving at the work place seemed to imply that operational competence was valued over academic competence. Jack's adoption of strategic pedagogy meant that, although his problem-solving abilities may have improved, compared with what he was able to achieve prior to the course, he had not been enabled or encouraged to develop independent perspectives within this stance which stretched beyond the realms of subject matter and a particular type of problem-solving. He objected to these artificial boundaries, and the ways in which he had been prevented from exploring various aspects of the given problem due to the inculcation of a step-by-step approach to problem-solving.

It was only later, through experiencing disabling disjunction within this stance, that Jack came to realise this, and subsequently adopted an 'operational' form of strategic pedagogy, perhaps what Entwistle (1981) might term a 'strategic approach'. Although he saw this as a regressive move, he also believed that it offered him alternative benefits. For example, although he saw the benefits of learning for himself he was also concerned about the relationship between the quantity of work - in terms of assignments and the percentage mark that it carried. One subject which counted for only 12% of the whole course mark took up 50% of the course time. Thus, because of assessment issues, Jack had to balance required learning against learning for himself in order to optimise the possibility of obtaining a good degree.

Interactional stance: away from a sense of integration within Validated knowing through 'real talk'

Paradoxically the sense of enabling disjunction through which Jack had gained confidence through 'real talk' within the group was also the means by which he later experienced disabling disjunction within this stance. Experiencing enabling disjunction had caused him to review and reflect upon his individual learning aspirations both within and beyond the group. When I spoke to him for the second time he began to realise that some group members were tending to opt for didactic talk-holding forth rather than sharing ideas (Belenky *et al*, 1986). Other members were opting not to share ideas and were relying on particular individuals to undertake most of the work in groups. Thus conflict, which sprung from differing expectations and agendas about both the nature of learning within the group and the roles of group members, emerged as a key issue for Jack. Rather than try to continue to facilitate an effective group process he chose to work less assiduously on behalf of the group and focus more on his own aspirations.

It was the heightened self-esteem gained through the group which gave Jack the confidence to implement this transition, however he saw it as a negative and disabling step both for himself and the group, particularly because he believed that learning with and through the group was still more effective than opting for a more individualistic position.

Jack's story demonstrates the way in which issues which transcend different stances and which are also connected with learner identity and learning context can result in complexity and ambiguity in students' lives. For example, ambiguity may ensue from enabling disjunction and ultimately result in transitions away from an overall sense of integration in students' lives. Jarvis (1987) argues that disjuncture lies at the heart of learning and that the closer it is to the person's system of meaning, the greater the imperative to respond to it. He also believes that all learning begins with experience and that it is the environment within which the experience is provided which helps to determine the type of learning that ensues -since it is the meaning that the learning places upon situations that affects the learning process thereafter. Jarvis' perspective raises questions about whether staff are in fact able to set up situations to promote disjuncture, whether it is desirable that they do, and if disjuncture occurs whether they are in fact able to respond. Weil actually argues that it is students rather than staff or the institution who 'carry the burden of responsibility for managing disjunction' (Weil, 1989: 140)

Section 3: Locating and managing paradox

This section documents a series of paradoxes which seem to become apparent when learning through PBL. Although this section documents broader perspectives about how PBL might be taken up organisationally, it also at points crosses the boundaries between student experience in this study and wider educational matters. Issues and concerns relating to broader perspectives are explored through the notion of paradox; in particular the paradoxical nature of PBL and disjunctions which might arise from and through these paradoxes at both an individual and organisational level.

The notion of paradox

The notion of a paradox developed through my own understanding of the interplay of multiple realities, multiple roles and identities which seemed to arise when PBL is in operation. It captures the idea that there exist distinct contradictions for different people, groups of people and organisations. For example, in this study issues which at first appeared enabling for a number of students, such as the opportunity for self-direction, were in fact disabling for others. Alternatively, the implementation of PBL by a particular group of staff within an institution was seen to be something which would promote reasoning skills and prepare students more effectively for the world of work. In fact the implementation of PBL resulted in conflict for some staff, students and practitioners regarding the nature of knowledge, and understandings about accountability within professional education.

Problem-based learning: a catalyst which activates multiple paradoxes?

In this study the framework of Dimensions of Learner Experience emerged through an exploration of the expectations of people involved in programmes in which PBL had been implemented. The learner stances (personal, pedagogical and interactional) are all trajectories of educational development which emerged from the data possibly because these particular stances arise more readily in courses which use PBL, compared with those which do not. In the context of the data presented in this study, PBL would seem to set up the possibility for disjunction in students' lives more than didactic methods of learning. Some possible reasons for this will be explored through a number of paradoxes.

Throughout the data there was little similarity between students' experiences. Although it is possible to see in Figure 5 that several students had similar Dimensions of Learner Experience, on further examination it is possible to see that the nature of disjunction and transition were different. Appendix 6 demonstrates the similarities of, and differences between, students' domains and transitions across the sites.

Locating paradox

The marked differences between students' experiences at first surprised me. I had expected that there would be some coherence in the data; issues which by this point in the research would make PBL more 'knowable'. Instead I began to see that multiple paradoxes were in fact where new understandings about PBL might emerge, new understandings which may transcend the framework of Dimensions of Learner Experience. Thus I, as author, might step out of this framework to consider the paradoxes of that which I had created and in doing so deconstruct it and "cherish ambiguity and openness over coherence and conclusiveness" (MacLure, 1995).

Disjunction as a means of locating paradox

Disjunction is a concept seen by many as a starting point for learning, (Jarvis, 1987; Weil, 1989). In this study, as in Weil's, (Weil, 1986; 1988; 1989) disjunction is used to refer to a sense of fragmentation of part of, or all of the self, characterised by frustration and confusion, and a loss of sense of self. This often results in anger, frustration, and the need for right answers. Disjunction in this study is seen as something dynamic, dynamic in the sense that both enabling and disabling forms of disjunction might lead to transitions in students lives.

Jarvis (1987) believes that one of the most significant aspects of teaching adults is first to raise meaningful and relevant questions in adults' minds, so that they can respond to the disjunction that has been created. In this sense opportunities for experiencing disjunction may be seen as something which are both created and defined by authorities. Yet in this study, disjunction did not only occur in relation to learning which was seen by students to be relevant and meaningful. Disjunction occurred because, through PBL, students experienced challenges to their life-world, challenges which were at odds with, or bore little relationship to, their current meaning systems. Dialogue, for many students, was central to finding meaning and making sense. Discovering meaning often occurred through groups because students were able to find meanings in the life-world of others and thus make a shift towards a greater sense of integration.

Disjunction, in this study, seemed to be a mechanism through which it was possible to locate paradox because it was often through encountering contradictions that students experienced disjunction. Students experienced paradox and subsequent disjunction in relation to the following:

- The expectations of, and actual encounter with, the learning context
- The expectations and experiences of notions of learning, knowledge and problem-solving, and what was allowed and disallowed within these frameworks
- The nature of learning, support and dialogue within groups
- The relationship between prior learning experiences and new and different ones
- The degree of contradiction between staffs' espoused theories and theories-in-use and in particular the extent to which critical thinking as espoused by staff was valued in reality
- The interrelationship between institutional and professional cultures
- The relationship between learning within the institution and that occurring in industry or fieldwork or practice placements
- The challenge to individual students' life-worlds

However, simultaneously identical issues may result in differing forms of disjunction for different students. For example, two students at Stanage both spoke of the disjunction which they experienced when the facilitator challenged the PBL group. One student experienced enabling disjunction through being forced to reflect upon her roles within, and commitment to, the group. Another student experienced disabling disjunction through being challenged similarly. She felt her tentative contributions to the group were worthless and she subsequently opted to withdraw psychologically from the group when the facilitator was present. Yet there were also distinct issues which appeared to give rise to disjunction within particular sites and thus seemed to be bound up with the context.

Dominant domains and issues of context

Figure 5 demonstrates that students across the sites predominantly adopted strategic pedagogy in their Pedagogical stance, and in their Interactional stance were enabled through PBL to 'connect experience through interaction'. This is further supported through examples presented in Appendix 6. Although it would be possible to discuss Figure 5 in depth across all domains, this section will explore the possible reasons why students tended to cluster in these two domains. Thus an exploration, in this chapter, of the dominant concerns which were at issue across the sites (and which consequently might also be at issue in other courses using PBL) will provide a basis for further discussion about wider issues within higher education in the final chapter (Chapter 10).

The adoption of strategic pedagogy

The reasons for the adoption of strategic pedagogy by students within their pedagogical stance seemed to be multifaceted and associated with three interrelated issues:

- *the way in which the form of assessment implemented on the course encouraged students to adopt methods of learning which ensured they passed the course.* These methods were not ones in which students personally believed. They also were not methods which particularly fitted with the form of learning encouraged through PBL. Students at Gimmer and Stanage, and to a lesser degree at Lember, spent considerable time trying to discover covert criteria. For example the necessity of discovering assessment criteria was raised by several students. Unlike Gimmer and Lember where students were able to use effective strategies which they felt enabled both their learning and their ability to pass the course, students at Stanage offered a different perspective. They felt confused about how marking criteria might be interpreted. This confusion was exacerbated by the lack of information supplied about assessments and the inadequacy of feedback following assessed work. A simultaneous concern was the fact that students were also being marked against a Masters grade. At Stanage, students who gained high marks throughout the Diploma could then transfer to the Masters programme which would involve undertaking a further year and submitting a dissertation. As some students were striving to enter the Masters programme, strategic methods (both within pedagogical and interactional stance) were adopted by students in order to maintain consistently high grades.

- *the particular form of problem-solving expected and/or rewarded by staff.* The nature of problem-solving was to some degree connected with staffs' view about the nature of knowledge (discussed below). However, more than other issues, the way in which problems were expected to be solved appeared to be connected with professional and discipline-based issues which were particular to each site. For example, at Gimmer problems tended to be 'limited' by staff so that students learned a particular body of knowledge and invariably produced a 'best' answer which fitted with the tutor's agenda. Many staff also operated with the assumption that students needed particular knowledge, in this case subject-based knowledge, to solve problems. At Lember a linear problem-solving model dominated the teaching-learning process, and feedback, (formal and informal) supplied by tutors tended to reinforce this. Tutors at Lember also appeared to believe that students required a body of knowledge before they could solve a problem, but to a lesser degree than believed by Gimmer staff. In contrast, at Stanage and Baslow, although students were encouraged to explore problems and situations which did not necessarily lend themselves to tidy solutions, they were encouraged to work within frameworks which guided both decision making and the kinds of knowledge they were likely to focus upon.

The guidance students received in terms of the way in which they were expected to solve problems seemed to be affected by particular cultures implicit within the nursing and social work professions. Thus each profession allowed for questioning within given parameters defined and accepted by the academics and professionals, but not beyond.

Therefore problem-solving at each site took place within a given framework; a framework of knowledge, problem-solving and professional culture. Across the sites there appeared to be a neglect of the distinction between knowledge required to understand a problem initially, knowledge needed to solve a problem and not only the relationship between the two but also the way in which learning occurred in relation to this (Margetson, 1993b: 42). Furthermore, at all the sites apart from Stanage, problem scenarios were, in the main, seen as problems to be solved. The idea that, instead, problem scenarios might be seen as dilemmas that were unresolvable and needed to be managed did not seem to arise.

- *staffs' notions of the nature of knowledge.* For some students across the sites delineation of knowledge by staff was something which was seen as helpful and acceptable and enabled students to gain high marks. However for others, the way in which knowledge was defined resulted in anger and frustration. A number of students believed they should have the right to define knowledge on their own terms so that knowledge was 'constructed knowledge' (Belenky *et al*, 1986) -it was contextual and they could be creators rather than receivers of knowledge. Thus different students adopted different strategies for managing learning which connected with their perceived notions of staffs' view of knowledge. These differences related to the kinds of knowledge which were allowed to be examined and the ways in which students were expected to explore this knowledge by staff and practitioners. For example, at Gimmer and Lumbert tutors assumed in general that knowledge preceded action and thus focussed students' attention on a specific body of knowledge. At Baslow, students tended to adopt strategic pedagogy while on practice placement in order to ensure that they passed the placement. Here students were encouraged to work within frameworks which guided their decision making within practice and adopt forms of knowledge entirely related to these frameworks. At Stanage, the adoption of strategic pedagogy related to the particular forms of knowledge and attitudes students were expected to display in assessed work.

The adoption of connecting experience through interaction

Some possible reasons for a number of students across the sites being enabled within their Interactional stance to 'connect experience through interaction' seemed to equate with three interrelated issues:

- *students perceiving the value of shared learning.* A number of students, throughout the study, spoke about the way in which their prior experiences of learning in didactic programmes had been both frustrating and lonely experiences. For them the opportunity to learn to solve problems with support from others resulted in increased confidence and self-esteem which led them to value PBL above didactic methods. Alternatively, a number of students at Stanage tended to utilise groups according to their perceived needs as future social workers and as places in which they could explore different ways of operating within groups in preparation for working as practitioners. Other students across the sites tended to use groups to enable them to make sense of issues within practice placements. These students spoke specifically about how they had used the groups to reflect upon their encounter with, and difficulties experienced in, practice and used the group to explore and make sense of personal challenges. This, for many students, resulted in a realisation that they had in fact understood more about the difficulties encountered than they had initially realised. In particular students at Baslow valued the opportunity PBL days offered not only to discuss with peers problems which had emerged from practice, but also to work collaboratively, which had not been an opportunity on offer in other areas of the course.
- *the opportunities for reflection provided within groups.* Personal reflection, along with reflection and discussion with others, had enabled many students to use skills and life experience in order to utilise the knowledge they had gained, and to reflect upon these processes. Groups were also locations in which reflection upon disjunction which was being experienced often took place.
- *the way in which dialogue facilitated 'making sense'.* Students across the sites used groups to enable them to make sense of the interrelationship between their problem solving processes, prior experience and the new material being learned. Through dialogue with peers they were able to consider how to tackle the given problem and thus integrate that which had been incomprehensible and unfamiliar into their life-worlds.

Through PBL students in this domain could explore and develop their own tacit understandings. For example the group was a place in which students were not only able to connect with problems and concerns encountered external to themselves (for example in practice placements, encountering problems or theory which was new to them) but were also able to make sense of inner inchoate understandings.

Reflection appeared to play a key role in this process. This was particularly important for students at Lembert, Gimmer and Baslow where reflection upon the learning process appeared to be absent in lecture-based components of the course.

Summary

This chapter has explored, in a number of ways, the framework of Dimensions of Learner Experience, and could perhaps be read as three interrelated stories, one for each section. Story one could be seen as the deconstruction and construction of the self through both the research process and the dialogue of this thesis. Story two might be seen as an exploration of the framework of Dimensions of Learner Experience not only from a personal perspective but also in relation to other related research and wider concerns in higher education. Story three might be read as the exploration and acknowledgment of the existence and role of paradox in the lives of learners and in professional and organisational contexts.

What is common to all of these stories is not just the presence of PBL but the centrality of disjunction, whether it is of an enabling or disabling nature. Barnett argues for 'an education for collective transcendence' (Barnett 1994: 193) through which students are enabled to become more fully themselves and develop within and then beyond frameworks of understanding. At the same time there is interaction between teacher and taught so that self-development is a mutual experience whereby one person's development is not at the expense of another, but enables the other. What appears to be apparent is that PBL may go some way to offering this form of education to which Barnett aspires.

To date there has been little recognition, not only of the paradoxes implicit within PBL as a way of learning, but also in the relationship between PBL and institutions, political systems, different cultures and economic climates. What currently appears be lacking are ways of understanding PBL which allow for complexity, paradox and uncertainty and which take account of the ideal of 'collective transcendence'.

However, 'Dimensions of Learner Experience' *does* offer a framework for understanding experiences of PBL while also asserting that learning through PBL may prompt reality construction and transformation in students' past, present and future learning. Nevertheless it is a framework which requires further development. Thus research will be required in a number of related spheres. These requirements will be presented in the final chapter, Chapter 10.

Chapter 10.

Reviewing our fictions

Introduction

“Perhaps therefore, what is most needed is that we should review our fictions, the kind of stories we are telling . . .”

(Usher, 1993:180)

This thesis has documented stories at multiple levels. It began with the story of my own encounter with PBL and the subsequent story of my journey through this project while listening to other people’s stories. It seems, therefore, a fitting end to return to the beginning, since I would argue that the end of a study such as this is just the end of a beginning; an end which is a starting point for further research and development, (including my own) and perhaps the beginning of new ways of seeing PBL. Thus if I were to return to facilitating PBL groups in an occupational therapy course, what as a result of this study, would I focus upon? In the context of this scenario, this chapter explores the ways in which PBL seems to promote particular kinds of learning opportunities, and examines specific curricular priorities which would need to be addressed in a course which had implemented PBL. This chapter concludes by suggesting areas which require further research as a result of this study.

Problem-based learning and the scope for promoting particular kinds of learning experiences

Were I to return to teach on a course which utilised PBL I would suggest to staff and students that PBL seemed to offer opportunities in learning which may enable students to realise *how* they constructed their learner stances in relation to learner identity, learning context, peers, staff and past, present and future learning. This raises issues about how students may be enabled, rather than disabled in the exploration of this construction process. Ways of approaching this might be to encourage the use of reflective journals and group reflection time, both at the beginning and throughout the programme, to enable students to make sense of their processes and processing. However, I would argue that when adopting PBL there are particular concerns which seem to become explicit through PBL and thus need to be explored within the context of staff-student relationships and student-student relationships, in order to address levels of diversity between espoused aims and values, and what happens in practice. Some of these issues include:

- the way in which through PBL students are often challenged to review prior images of learning, teaching, knowledge, tutors and peers
- the extent to which space for learning exists and enables students to reflect upon individual and collective goals

- the way in which opportunities are offered through PBL for the reflection upon and reconstruction of their learner identity, which in turn may result in transitions within their learner stances within particular environments.

- the importance of seeing disjunction as central to learner experience, particularly as PBL seems to set up the possibility for disjunction in students' lives. It is also critical for staff and students to realise that disjunction may not just occur in relation to learning which is seen by students to be meaningful. Disjunction may also occur because of the way in which learning through PBL prompts challenges to students' life-worlds. Thus both staff and students in PBL programmes need to be made aware of different forms of disjunction and explore ways in which this may affect the practical outworking of the PBL programme, both in the context of the institution and the context of people's lives.

- that it is critical that disjunction is managed effectively. Mechanisms should be in place so that disjunction *can* be managed, and in ways in which it *is* or *becomes* enabling, and so that the burden of responsibility for managing that disjunction is not left wholly with the students. For example the nature of support provided by staff, and the extent to which groups are or should be self-supporting, will need to be addressed. Taylor argues (1986) that peer relationships and staff-student relationships are critical in the movement away from disorientation, (which has similar characteristics to disjunction) towards a new perspective. Thus it is important that both staff and students in PBL programmes value and utilise collaborative learning experiences and discuss the nature of support on offer.

- the way in which opportunities for students to use the group for the development of learner identity are made explicit. There is a need to emphasise the value of dialogue within groups for enabling individuals to reflect on prior experiences, connect with their life-world and facilitate making sense of current or previous concerns not formerly understood.

Specific curricular priorities

Within a PBL programme it would be important to address theories and cultures which underpin the curriculum, since conflicts which emerge between these, espoused intentions of staff and what occurs in practice may be not only the starting point for disjunction but also the reason that disjunction remains disabling. For example:

Staffs' epistemological priorities may force students to adopt the 'know how/ know that' priority which Barnett (1994) argues against so cogently. For in PBL programmes which focus predominantly on vocational relevance, students will be forced into a *modus operandi* in which valid knowledge is only seen in terms of what it will enable the students to *do*. Other courses where academic competence is seen as paramount may encourage students to continue to acquire vast amounts of knowledge, not unlike traditional courses, with a view that this is what will enhance their knowledge and understanding of the world. What is needed instead are epistemological priorities in PBL programmes which encourage students to 'know that' *and* 'know how' and thus embrace the ideal of not favouring particular epistemologies but instead recognising, valuing and querying different forms of knowledge and knowing (as aforementioned in Chapter 7, Pedagogical stance, in the domain of 'reflective pedagogy'). For example in this study the cluttered syllabus at Stanage and Baslow, along with the expectations of the professional bodies, and at Gimmer and Lemberth the focus on covering ground, seemed to be odds for some students with the development of their learner identity. The way in which these kinds of barriers seemed to prompt disjunction in staff and students' lives may also be the means of forcing an interrogation of the theories and cultures which underpin these disciplines.

Students' notions of learning and knowledge may be seen by students to be discipline based even if the knowledge being learned coalesces around a problem scenario. Transcending discipline boundaries was something which staff and students on these PBL programmes initially found difficult to manage, and this seemed to be connected with students seeing knowledge as essentially propositional. It would seem from research into students' learning that students today construe learning tasks as predominantly assimilating and reproducing material supplied by academics, rather than engaging with what is meaningful and framing experience for themselves (Entwistle, 1987; Gibbs, 1992a; Barnett, 1994). Although *this* research would support this view at one level, since students in this study primarily adopted strategic pedagogy, it would also appear that for many students PBL is the mechanism through which these very notions of learning and knowledge were challenged, and transitions away from strategic pedagogy occurred.

It may be not only staffs' epistemological priorities and students' notions of learning that are at issue, but also conceptions of critique, particularly in relation to problem-solving. For example if critique is seen only as something with a use value within given boundary conditions then it is not the kind of critique which will, in the long term, encourage students to develop imaginative possibilities for discussion nor be multidimensional or dialogic in character. In courses which use PBL, it is important to see problem scenarios as dilemmas to be managed, rather than just problems to be solved. This will relate not only to staffs' conceptions of critique but also to the degree of choice students perceive they have in the way that a problem is approached, and their perceptions of what is allowed and disallowed within epistemological and professional frameworks.

The extent to which, within the PBL programme, prior knowledge and experience is seen as a basis for further learning, (by both staff and students). O'Reilly (1989) argues that there are risks involved in moving from experience that is incoherent to making public statements about one's self. Meanings, particularly about our prior experience and learning, seem to be required to become coherent in order that we can connect with them and value them. PBL programmes which place value upon prior experience must be prepared, therefore, to offer students the space and support to explore incoherence, (and not to resolve it prematurely), thereby extending the degree to which students are enabled not just to value prior experience but also to value multiple and often contradictory meanings which emerge through it and from it. PBL, in this study, seemed to be the catalyst for students which prompted ways of working with and through their experience, often enabling them to link new experiences and knowledge to those of the past and thereby prompting new (more and less coherent) meanings.

The extent to which the existence of, and transient nature of, the learning context is acknowledged. Ramsden (1984; 1992) suggests that students' perception of the learning context is an integral component of his or her learning. Thus students respond to the situation they perceive, which may differ from that which has been defined by educators. Taylor (1986) argues that since educational programmes are temporary environments it is important to raise students' awareness of the changing nature of the learning environment and themselves within it. Therefore recognition of the relationship between staff espoused theories and theories-in-use, in conjunction with students' perception of the learning context, is key to facilitating disjunction which is enabling. In this study it was not only students' perceptions of assessment, teaching and the curriculum which affected students' ability to make shifts away from disjunction which was disabling, but also the interaction of learner stances and prior and current experiences within that context.

The way in which PBL programmes are resourced. Throughout the study a number of students were both aware of and/or were recipients of the changes in higher education due to cuts in funding. They wondered whether PBL had been implemented to save staff time and teach more students with less resources. It was noticeable in this study that programmes which offered good library support, room allocation and human resources appeared to be more effective than those which did not. For example at Lembed students had a dedicated room which was felt by staff and students to enhance the PBL process. At Stanage the majority of students found the lack of library resources frustrating and disabling but some found that poor resourcing actually enhanced creativity in learning and encouraged them to use themselves and their peers as learning resources.

The way in which PBL is integrated into the curriculum as a whole. Modular programmes in which modular content is distinctly separate and is maintained within tight discipline boundaries may result in a fragmented experience of higher education for students. This inquiry suggests that there may be a conflict between the changing nature of higher education characterised by modularisation (of the sort mentioned above), credit accumulation and more fragmented curricula than in previous years, and PBL which seems to work most effectively in integrated programmes. In this study, courses which existed beyond modular structures appeared to result in learning which transcended discipline boundaries more effectively than those which did not. For example students at Stanage appeared to be able to integrate knowledge across discipline boundaries more easily than students at Gimmer and Baslow.

Areas for further research

This study demonstrated that PBL may promote many of the abilities currently high on the agenda in British higher education in the 1990s. However as the wider implications of the implementation of PBL are more complex and far reaching, further research is required into the following areas:

- The relationship between earlier and more recent work which relates to issues raised through the model of Dimensions of Learner Experience, particularly in relation to notions of transition. For example

Perry devised nine positions from a qualitative study of men at Harvard which described how students' conceptions of the nature and origins of knowledge evolved (Perry, 1970; 1988). This important study put issues of learner experience on centre stage and argued that students proceed through a sequence of developmental stages.

Deflections from this developmental sequence may occur in the form of *temporising, retreat or escape*. However Perry's scheme sees movement within the scheme as necessarily progressive and positively developmental. This study challenges Perry's perspective that transitions are always progressive or worthwhile, and the notions that deflections are necessarily regressive.

Belenky et al (1986) were stimulated by Perry's work to explore diverse women's perspectives and identified five categories of 'ways of knowing' characterised by a spiral. Although in this model it is possible to move forwards and backwards within the spiral the model is still contained within a framework of epistemological development. Furthermore, unlike Perry's work, the nature of transitions is not explored.

Taylor (1986) explored experience-based learning in relation to self-direction. She identified a sequential cyclical model with recurring phases whereby learners move from disorientation and exploration to reorientation and equilibrium. Taylor explores the nature of transitions in depth and argues that relationships play a central role in enabling learners to move away from disorientation. However in Taylor's model it does not seem to be possible to move backwards in the cycle and thereby experience transitions which are disabling.

Jarvis' model of adult learning (Jarvis, 1987) which is based on adult learners' accounts of their learning processes. It charts nine different routes which may emerge from a 'potential learning situation', which in turn may or may not result in learning. Each of the routes relates to different forms of knowledge and different social situations and has different purposes. For Jarvis a potential learning situation occurs when an individual's 'stock of knowledge and/or their self-concept and the socio-cultural milieu in which experience occurs' are at odds in some way. He terms this 'disjuncture'. Jarvis challenges the notion of cyclical stages and argues that learning always occurs within a social context and that it is not just an individualistic phenomena but also a social one. This is one of the few models in which learning does not appear to be seen as necessarily developmental, and in which disjunction is the starting point for education or miseducation. Unlike Dimensions of Learner Experience, Jarvis' model does not appear to deal in detail with the nature of transitions or argue for learning which transcends 'know that' *and* 'know how' (Jarvis, 1994) in order to recognise, value and query different forms of knowledge and knowing as in the domain of 'reflective pedagogy'.

Mezirow's (1981; 1991) adult learning model emerged from his work with women in college re-entry programmes. He argues for a critical theory of adult learning in which our 'meaning perspectives' guide our understanding of our relationships and ourselves, and are transformed through reflection on the grounds of our beliefs. Mezirow identified 11 phases which begin with a 'disorientating dilemma' (similar to Jarvis' concept of disjuncture) which may be the starting point for 'perspective transformation' - the emancipatory process of becoming aware of how and why the structure of psycho-cultural assumptions has affected the way we see ourselves and our relationships. In my study transitions were constituted differently from those defined by Mezirow. Transitions here are seen instead as the process whereby new and/or old perspectives are affirmed or discarded through experiencing different forms of disjunction. Thus transitions involve both critical reflection and critical self-reflection (Mezirow, 1994: 228) and can involve shifts towards or away from a sense of integration or disjunction in different learner stances.

There is also a small body of literature emerging which explores issues around transitions which extends beyond earlier research. Nelson (1994) argues that adult learning research underplays ways in which meaning perspectives and life-worlds are transformed, and suggests the use of autobiographical accounts as a means of deepening understandings of these transitions. Blaxter and Tight (1995) maintain from their research that links between life transition and adult participation in education have been over stated. In the context of my own research I would argue that transition is connected with learner identity, thus it is learner transition which is at issue rather than life transition as defined by Blaxter and Tight or by Tennant (1993). However there is a need for further research in this developing field.

Research is also required into:

- Learner stances, particularly from the learner's perspective since as most of what is written about learning is from teachers' or researchers' perspectives whose assumptions are that there is a body of knowledge to be taught and learned (Boud *et al*, 1993: 1).
- The processes through which staff and students are enabled to interpret their experiences of PBL. For example, how do they manage incoherence, reassess meaning and redefine learning?

- The nature of transitions for staff involved in PBL programmes. For example in this study there was data which seemed to suggest transitions occurred for staff, but this study focussed on students' experiences.
- Dimensions of Learner Experience in relation to gender and different cultures and economic climates.

Retrospect and prospect: the knight's move

Through reflection upon my own Dimensions of Learner Experience I began to see that the construction of frameworks was something which was not only central to the way in which I learned but also to the way in which I made sense of problems and issues. The creation of frameworks within and through this study began with lists of categories into which difficulties associated with PBL programmes might be fitted and moved; lists which I could use to ignore complexity and ambiguity within my data (as aforementioned in Chapter 3). Later a framework emerged which did in fact offer a way of accounting for complexity and paradox which I encountered in the stories of those with whom I spoke: Dimensions of Learner Experience. Yet beyond the creation of this particular framework was a realisation that, although there were issues through which the framework might be both embraced and extended, they might also simultaneously threaten to explode it. The 'knight's move', as a metaphor, captures some of these issues

On the one hand it captures the idea that movement within, and beyond, this framework comprises subtlety and an ability to move in a number of directions while transcending risk and uncertainty. For example Dimensions of Learner Experience may be used as a framework for making sense of PBL. Simultaneously it may be used as a framework to demonstrate ways in which PBL may prompt, for some students, a de/reconstruction of taken-for granted realities which ultimately enables them to give meaning to the realities of their past, present and future learning, which may not arise through more traditional methods of learning.

But at a level of subtext the knight's move can be understood in an altogether different way. In this sense this is where the thesis has presented a profound and fundamental challenge to my own thinking about learning. I realise now that to decontextualise PBL from curricula, innovation, learning context, learner identity and people's lives is to attempt to locate PBL outside experience. Students' accounts throughout this study illustrate that PBL was *always* located within the broader context of their learner experience and learner identity. Thus in terms of the literature and research into PBL (including my own) two sets of challenges emerge: theoretical and empirical.

Theoretical challenge: the web of belief

Quine's (1963) notion of 'a web of belief', used as the title for the literature review (Chapter 2), encapsulates the idea that the totality of our so-called knowledge or beliefs is a man-made (*sic*) fabric which impinges upon our experience only along the edges. Those writing about PBL tend to act as if it can be located outside people's experience. I used this particular idea to capture the idea that there are a number of competing conceptions about the nature of PBL but at that point I was not able to see the broader irony about using such a title to frame an exploration of the literature. In essence I documented a review of the 'rooks, pawns and bishops . . . disparate pieces of a game of chess'. What I had not seen in Quine's concept was that the world-wide literature on PBL was in fact a man-made (*sic*) fabric, a fabric which did not even impinge on experience at the edges since those writing about PBL had located it outside people's experience. Although many discussed definitions of PBL and raised the importance of using prior experience for learning, experience was only ever seen as peripheral to PBL instead of *vice versa*. For example Boud (1985) and Barrows (1986) both argue that PBL is not to be seen as a particular way or method of learning, rather it is to be seen as learning which has a number of differing forms. In particular Barrows argued that the term PBL must be considered a genus from which there are many species and subspecies. As such all types of PBL must be evaluated in terms of issues such as the type of problems used, assessment methods, learners' autonomy and the way in which teaching and learning occurs. Similarly Walton and Matthews (1989) and Engel (1991) argue that PBL is to be understood as a general educational strategy rather than merely a teaching method.

At the beginning of my journey I set out to provide a review of the strengths and weaknesses of PBL. My journey now would continue differently. I would henceforth explore the decontextualisation of PBL from learner experience theoretically and in the context of the literature. The more recent debates (Margetson 1991a; 1991b; 1993a; 1993b; 1994) I had thought were what should be under consideration. Yet Margetson, like the rest, has fallen into the trap of conceptualising PBL as

" . . . a conception of knowledge, understanding, and education profoundly different from the more usual conception underlying subject-based learning"

(Margetson, 1991b: 43-44)

Although Margetson offers a more spirited review of issues connected with PBL, he too fails to acknowledge that it is impossible to separate PBL from learning and teaching generally.

Current debate about PBL centres on concerns which relate not only to the nature of PBL *per se* but also to the pressures, reforms and readjustment of ideologies which have emerged from the world-wide changes in the nature of higher education. What is more, in the UK at least, PBL is obtaining increasing support from the State because of the way in which PBL is seen to address issues on the State's agenda (Barnett, 1994: 5). Yet the nature of PBL is an area which is still under discussion and arguments continue to rage in this field. The underlying theoretical tenets and political implications of PBL in relation to institutions, political systems, different cultures and economic climates have been explored by few. As a theoretical model of learning it is seen to promote skills for life and work whilst putting student learning centre stage. However no one appears to have noticed that decontextualised from these multifaceted influences, and learners' experiences of these, it has about as much substance as the emperor's new clothes.

Empirical challenge: PBL versus Dimensions of Learner Experience

When I set out to study PBL I began with the view that I could explore staff and students' *experiences* of PBL. I believed by setting out to explore their experiences I would begin to make sense of some of the complexities which appeared to be inherent in this model of learning. I too was acting as if I could locate PBL outside experience. The difficulty and complexity of attempting to do this emerged throughout the study as issues of context, prior experience and learner history seemed to slip in and out of focus. The more I attempted to explore PBL in isolation, the more I seemed to collide with matters connected with people's lives in complex changing institutions characterised by a range of teaching and learning strategies. It was only when I was prepared to put people at the centre of the study that I was able to make sense of issues connected with PBL *in the context of* students' experience of learning and of life. I constantly struggled to be able to say that PBL resulted in particular kinds of learning experiences. Instead I created a model, Dimensions of Learner Experience, the title of which seemed to stand in direct opposition to PBL.

PBL seemed to ignore the centrality of experience whereas this model did not. The model highlighted the paradox that the study, which began as a quest to make sense of PBL became instead a thesis about how learners construct their experience. Students with whom I spoke could not separate out their experience of PBL from how they talked about themselves and their learner identity. Vernon and Blake capture the *some* of the essence of the dilemma I encountered (although in a slightly positivist vein):

“Conducting a high-quality evaluative research on problem-based learning has been difficult for a variety of reasons. The more independent variable, problem-based learning, is more than a simple teaching method. It is better described as a complex mixture of a general teaching philosophy, learning objectives and goals, and faculty attitudes and values, all of which are difficult to regulate and are often not very well defined in research reports. The outcome variables that are often most highly valued, and best exemplify the special features of problem-based learning are often complex, multidimensional and difficult to measure.”

(Vernon and Blake, 1993: 660)

Yet, for me, the real paradox was that in attempting to grasp the ungraspable I discovered something more profound, a bigger and richer terrain, a model for understanding learner experience. Thus although Dimensions of Learner Experience emerged from a study which sought to examine the expectations of people involved in programmes which implemented PBL, they relate to wider issues about learning. Learner stances (personal stance, pedagogical stance and interactional stance) are all trajectories of educational development which emerged from these data *possibly* because these particular stances arise more readily in courses which use PBL, compared with those which do not. What is clear, however, from this study is that it was the relationship between disjunction (enabling or disabling) and experience which seemed to be the starting point for learning. The model of Dimensions of Learner Experience illuminates new questions about learner experience, learning context and learning ‘in relation’. It provides a means of exploring the relationship between these. It also offers new insights into the nature of transitions which many occur for students in relation to their learner identity. For example shifts in learner experience caused by a challenge to the person’s life-world often resulted in students becoming critically aware of new learning needs which arose from the challenge to dimensions of their current learner experience.

As importantly it does not construe transitions as necessarily developmental towards a higher level of existence. Rather students become critically aware of new learning needs which arise from the challenge to dimensions of their current learner experience. This awareness results in the adoption of a different domain which has different meanings from the previous one they have taken up. Transitions are not linear but *recursive*. They involve revisiting and redefining knowledge processes and experiences, rather than necessarily refining them, although the latter may also occur. Thus Dimensions of Learner experience and the notion of the 3 stances offer one way of understanding how construction and deconstruction of learner experience mediates between a host of experiences, both internal and external.

At the beginning of the chapter I began with a quotation, but only presented half of it. I wish to end this journey by completing the quotation and raising a further set of queries about PBL:

“Perhaps therefore, what is most needed is that we should review our fictions, the kind of stories we are telling, and ask ourselves, whatever our intentions might be, whether our language is liberating or oppressive.”

(Usher, 1993:180)

To divorce PBL from experience is to create fiction and fiction may only represent a form of truth. Safe and unquestioning understandings of PBL are a myth - a myth of a framework. To locate discourse on PBL outside a language of experiential learning is to adopt learning methods which deny learner identity. Whatever the intentions might be, the multifaceted nature of people's experience is denied and the language of PBL becomes oppressive rather than liberating. The same must also be true of a framework such as Dimensions of Learner Experience.

According to Popper (1970) all thought, (and presumably action and experience) takes place within some kind of framework, although we are not forever confined to these frameworks. Barnett (1994) argues that the problem which Popper evaded was that the practical rules of a particular framework forbid an examination of the framework itself. Yet in this study Dimensions of Learner Experience is a framework which has to be continually negotiated, explored, deconstructed and reframed, perhaps as a post modern 'framework' in which uncertainty and critical thought are central.

The notion of the knight's move first emerged through reflections upon my own struggles and transitions within this study, and my own need to move both within and beyond frameworks. However I can now see that there is a certain irony about the whole project. An irony in the sense of the emerging focus becoming not only the multiple identities and experiences of those who participated in the study, but also my own. This study was indeed a reflexive project, an interrogation of past, present and future. I saw too that my dislike of uncertainty often resulted in a rush for safety behind the very boundaries I was trying to push. Yet I learned to value incoherence, ambiguity and paradox, not only as central themes in PBL and indeed in learning more generally, but also as the means by which I might (and might not) experience 'enabling transitions'. Thus in PBL one may not be seen to experience, or choose between, theory *or* practice, progressive *or* traditional, enabling *or* disabling disjunction. Instead then the nature of significant learning lies in cherishing movement between poles of ambiguity while resisting the desire to rest on either of them, thus refusing to solve an insoluble paradox.

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Appendices

Overview of the purposes of the study

The focus of the research is :

To examine the expectations and experiences of different people in different professions and educational environments who are using Problem-based Learning (PBL) in some way. The study will map out issues and complexities of PBL: This will not be by evaluating or comparing courses but by identifying themes and patterns arising out of a systematic exploration of purposes, processes, perceptions and desired outcomes of PBL in a variety of situations.

The purpose of the data collection:

The purpose of the data collection will be to map out patterns tapping into the richness of peoples' experiences in different learning situations and on different courses. For example the issue of time seems to raise a variety of views: On one course where PBL is the main learning focus a forty minute lecture can be regarded as ineffective use of time by both staff and students, whereas on a traditional four year degree programme where PBL is a small part of the curriculum, the quantity of work done for one PBL seminar can be seen to take up too much time.

Furthermore, issues regarding the linking of theory and practice are seen to be of high priority on courses which use PBL as the main mode of operating, whereas these would appear to have less emphasis on other courses.

Methods of data collection:

I intend to use multiple methods in order to explore the different ways in which staff and students make sense of their experiences of PBL.

For example:

Unstructured interviews with staff and students (1:1 with me)

Group discussions over a period of time with:

- a) Course designers
- b) Students
- c) Staff

My overall intention initially will be to:

- 1) Collect data across disciplines and sites
- 2) Deepen my understanding of the complexities of PBL by examining themes and issues which occur across sites and disciplines
- 3) Consider why certain themes seem to be more or less at issue in one setting as opposed to another.

I am committed to doing research **with** people, not **on** people and therefore my research is designed to be both flexible and collaborative.

Consent Form

The purpose of the research:

To explore the processes and complexities around learning which use problems as a focus.

This will be carried out through:

- a) 1:1 interviews with students which will seek to explore their opinions of this type of learning.
- b) Discussion group(s) with students about their experiences
- c) Informal discussions (1:1 and group)

Confidentiality

The data collected will be confidential and anonymity will be maintained as far as possible. It is likely that individuals will be quoted in the thesis, however the raw and processed data will be coded and the key to the code will be maintained separately.

Participation in this study is entirely voluntary. The respondent has the right to withdraw from the study at any time and should inform the researcher of withdrawal in writing.

I have read and agree to these stipulations.

Signed.....

Date.....

Biographical accounts

George - a student at Stanage University

It is my first day at Stanage University and after talking with Geoff I meet up with Celia, another member of staff who had already helped me to make contact with the staff and students involved in the course. As she shows me round the department we come across a variety of people, one of whom is George. We make eye contact and suddenly both realise who the other is - we'd spoken on the 'phone last night to arrange a time to meet. He gives me a huge grin and says 'Hi', I return his grin, saying 'see you tomorrow.'

The following day we meet on the stairs and wander down to the rather dull, dark room I have been assigned for interviews. George, a heavily built Jamaican in his mid thirties, tells me that, unlike many of the other students on the course he is not a graduate, and that before he came on the course he worked in a residential children's home. He tells me first of all that he's found the amount of work on the course quite disabling, and that he feels that most of the time he hasn't been able to take all the information in about a subject area which is covered by a two week study unit. He puts it like this :

"I think what I've become aware of that if there's areas of reading and research that you've missed out in the earlier stages, it becomes such a vast area to just catch up with in the later stages, and obviously that's going to be progressive. And I actually find that quite disabling. I think because there's just too much, there's just too much for me to do, and that way of learning just becomes too difficult, and you just fail to function in it, you just try to cope with each study group meeting"

For George as an individual the course does not wholly cater for his learning needs. He says that as most other people on the course are graduates they perhaps don't need what he calls 'the basics', but that he does. He needs all the help he can get. So to some extent for him there is a dilemma:

"for me personally as an individual, I much prefer it to being sat in 8 lectures a week, but recognise that there needs to be a way of trying to bring information from staff to students. And for me that's where a lot of the issues lie, I don't feel I receive adequate information. So whereas I would prefer it to be delivered verbally like a lecture, supported by handouts, I do like the sort of PBL group process."

There is also a dilemma for him about the relationship between the aims of the study unit and his needs as a learner. He explains:

“you can be aware of what your personal learning needs are because you can actually see the goal posts in effect, so you can understand what you’re lacking. But to actually focus on your personal needs to fit that criteria can be quite difficult, it can be a mismatch thing, in that you actually need to be fairly determined that you’re going to make sure that’s covered in the month or the 6 month between the reviews and stuff like that. I nearly said it (PBL) doesn’t work, but I think it does if you’re determined and aware and aware of your own needs but also aware and have a foresight in a study unit or skills group situation to actually use the opportunity when it arises”

Yet he’s also learned through this PBL process the need to be self-directed, to make his own decisions about what he needs to find out, but he also recognises the need to contain the learning into something which is manageable. He describes it like this:

“I think I certainly have a greater understanding of group work, group process. As an individual I now recognise that if I want to know it I need to go and find it out but I do recognise there are great limitations in how much I can do.”

We go on to talk about the course as a whole. George tells me that he thinks that there should be more lectures in the course, more information given in the form of handouts and more input by the staff in the study groups. He says he thinks that it’s a risk on a professional course, such as this, if subject areas are missed out by the groups when they are doing the study units. He tells me:

“We have very little lecturer input on group stuff, I’m just talking about the group working side here. You just sort of say, “This just doesn’t seem fair, the way we’re expected to, if we want to know it, go out and find it, it doesn’t seem a fair way to learn.” And it doesn’t seem very safe, I think it’s a real risk in qualifying people who are basically going to be helping people for the rest of their working life. And it seems an awful risk to just, “If you want to go out and get it, and if you’re not fussed, don’t bother.”

George also feels that the lack of resources - for example not enough books in the library, or the fact that students from other faculties want to use books which are key to this course - does not always enable the students to maximise their learning opportunities within groups. George also mentions that some of the students ‘have strong views’ about the fact that they do not have access to a photocopier in their department when students in the neighbouring departments do. And he goes on to say:

“I mean in the group work and the skills group as our resource we were given a book list, 2 packs, 30 sides of A4 paper and 10 or 12 people in each group, and that’s our resource. You just sort of say, “Well it doesn’t seem fair, are we supposed to go away and photocopy it, if we want to read it ?”

We continue to talk about the groups and the other things in the course which seem to affect the way that the study groups work, and what takes place within them.

George mentions that because each student is also in other groups besides the PBL study group, there is often a 'conflict of pressures' because each group to which students belong creates work for individual members to do. However George feels that one of the things which inhibits the groups most of all is the assessed work. He says that when one of the group members is doing a piece of individually assessed work it becomes a priority for them as it counts towards their professional qualification, to such an extent that it "actually inhibits what the group can do". He puts it like this:

"I personally feel it (assessment) inhibits a PBL course, because PBL to me is going out there and researching, finding out how the individuals do the job, all those sort of things. Whereas assessed work relies on the individual gaining knowledge, so I can see, yes, it's on the individual because it's the individual's learning experience but the process that's involved just seems to contradict each other, one disables the other."

So for him there is a conflict between group needs and individual needs. George also reflects upon the fact that, for him, there is a further mismatch. He feels that as future professionals he and the other students on the course will be working predominantly with individuals rather than with groups, so he questions the relationship between the PBL process of learning and working in groups, and the wider context of the world of work:

"Most of the work is done in groups, in each group you're considering the process of that group, the function of that group, the tasks are accomplished by that group. So primarily that. There seems to be very little work done in terms of individual work, and it's those sort of issues you find confusing, cos primarily, out in the field, no matter what you're doing, whether it's social work or probation officer or whatever, you're basically dealing with individuals. Okay your individuals may be in family groups but primarily the issues are concerned are individuals. So I would say there's conflict and things in the solutions"

Outside, the noise of students leaving the building after lectures distracts us a little, and a few of them glance into the small room we're talking in. I ask George how he would describe this course - he says it's an adventure, a new experience and tells me how it's affecting him, and other students - their identity, their lives.

"I think the students have power and a voice on all the management groups within this department, but I think sometimes the issues are so big in student's lives that they don't see that as an issue, they don't see it as a priority in student life. Because when you compare it to the normal age group of students, of 18 to 21 year olds I think it's a profession that the learning experience is a school experience, whereas people here are just taking 2 years out for a specific reason, I think it's sort of a career move, more so than primarily a learning experience".

George tells me that the course comprises predominantly mature students, people with family commitments, people who don't always live near the University. He says he feels annoyed and frustrated that students are not able to get more out of the course because of the way it is scheduled . . . the way the learning is structured does not take into account people's lives. I ask him how he would like it changed:

"I think that this morning, -today the majority of students have only got one meeting, one group, that's an hour and a half skills group meeting. There are support groups - but there's assessed work so they won't be here, the majority won't be here. You're talking about students travelling from Swindon, all over Wiltshire, Oxford, Exeter, Devon, South Devon, for one and a half hours. And I'm just wondering whether it would be better to say we start at 9 and finish at 5 or 10 till 4, the whole day, for 3 days a week, and it's timetabled so you have 1 or 2 days a week free each week for private study. Because that's what you're expected to do for the rest of the day."

For George this method of learning is something which affects people and their lives - their identity as learners, group members, and future professionals. Although he values this process of learning, he also sees conflicts, he summarises it like this:

"In terms of potential, very, very good I think the enabling potential for a lot of students who would find University life very difficult. It's a way of learning that gives opportunities most students can be part of. In terms of my experience here of PBL, it's been confused, it's been difficult, in the conflicts between the PBL process and the expectations of the PBL process and the actual assessment process, the academic process."

John - a tutor at Lember University

It's a golden Autumn morning when I set off in the car to go and talk with John. He'd wanted to meet early, so I arrive at his office at 8.20 am and wait for him to arrive. When he does he's wearing bicycle clips and carrying a pump. He takes off his coat and bicycle clips saying he needs to go off and see someone, and as he does he lets me into his rather cluttered office. I just sort myself out and he returns, and as he sits down I notice he's dressed in navy cords, striped shirt and tie.

We begin by talking about how he became involved in teaching on this course. John tells me in his gruff clipped northern accent that he was asked to join by the staff member who introduced problem-based learning. However, John thinks that there is in reality little difference between problem-based learning and a lecture-based course. He tells me:

"I've felt for many many years that students do, on the traditional lecture based course, the students actually do most of their learning in the last five or six weeks when they are coming to grips with the sort of tutorial problems that they have to solve to pass the exam. So I feel that most of my teaching is done when they are solving problems...So in a way I don't suppose it's that much difference, it's just (in the PBL course) that you intersperse a little bit of lecture with a problem and then trying to solve it and then reporting back...but in the traditional course you tend to say "here's the information" and you give the tutorial questions, they do some of them and don't do others and then the real crunch comes when they prepare for the exams"

And as we continue to talk he says that, as far as he is concerned, university students learn in a similar manner, whether they are on a problem-based learning course or a lecture course:

"it's all mind training of one form or another, that's all that you do, you train them to use their mind to think about a problem."

But he also tells me:

"I don't really know if we're achieving anything different at the end of the day but it's certainly a worthwhile route to go down"

John explains what it is about problem-based learning that he sees as being worthwhile -for himself, the students and for industry. He begins by saying that he has been teaching on lecture courses for a number of years and says he feels that he has to be less disciplined when teaching on this course:

"I think it (PBL) actually means I have to be less disciplined, I feel in a strange way under far less pressure teaching on this course than I do teaching on the traditional course because - you don't have this deadline of in 50 minutes I must be at a particular point."

So for him this also means that it's easier to teach and more fun. John thinks this may be just because it's a change in the method of teaching, "maybe because it's different" he says. I ask him why he sees it as being more fun, he tells me:

"There's a lot of "what shall we do today about it" which is refreshing. In a way it's because you've got more opportunity to talk to the students. Lecturing's very boring, but the going round solving the problem is much more interesting. You're never quite sure what they're going to ask. And I think from that point of view it's more interesting"

For John, it's not just about the method of teaching, but the fact that it's a new challenge to him as a teacher in a variety of ways. He finds the type and variety of questions that the students ask stimulating, he's finding that he -like many other members of staff, he is learning through being involved in a course which uses problem-based learning. Furthermore he thinks the discussions that are occurring between staff about what is taught in the course, and the teaching and learning methods used within it, constantly challenge him to reflect upon how he teaches other courses within the University. He puts it like this:

"I think it's been beneficial for all the teaching that we do and I don't just think it's because of the course I think it's the fact that there was something different, it was a change. And because it was slightly different a lot of time's been spent talking about it and that will in itself cause you to think about what you do. And so I think from that point of view, it has been I think very beneficial and because it can be seen to work then there is the other immediate carry over to other courses."

We move on from talking about John's experiences to those of the students. He thinks that the students benefit from problem-based learning in a variety of ways, and mentions, amongst other things them gaining confidence and learning to share and communicate their ideas through group work. John feels that this is partly due to the way in which he and other members of staff pose questions and raise issues. He tells me:

"I think the students gain a lot more self- confidence because they're involved - they're exposed to a certain extent because the technique that I've adopted and I think others have as well, it's much more "Well what do you think of this ?" rather than the 50 minute lecture with the occasional question. It's much more getting them to say things and do things."

John also feels that the students enjoy working in groups and that they find this way of working interesting. This is probably because in this course the subject areas link up through the problem-solving exercises and this seems to enable students to make connections across the subject boundaries more effectively than in a lecture course. He puts it like this:

“I think they probably feel that it is a bit more interesting in that everything that they’re doing is linked around the course that they’re on. On a general ...degree, it’s basic principles with applications, that the particular lecturer is interested in, here...we pick out specific problems for the vehicle which nevertheless encompass the amount of basic science we want to teach them”

But he also thinks that some of the students find the continual assessment on the course quite stressful, and harder work than they had perhaps envisaged:

“I think they find fairly quickly that one of the reasons they may’ve picked the course is the wrong one. Like “Wow I must do this, it’s continually assessed, no more exams, so therefore it’s going to be easy”. I think they find with the amount of course work they get at times and the deadlines that they’re given, and also the project weeks... I think they find that puts them under quite a considerable amount of pressure.”

Although John considers that there are many positive points about this way of learning, he expresses concern about the lack of rigour involved in the way that the students learn the material, and he questions the depth of the science in the course. John says that, although it is interesting for both himself and the students, and in some ways it’s a less artificial way of learning, there is a feeling that :

“the main worry that I might have is the depth of science and carry over of it. They might be very good at solving the one problem we’ve given them -but how good”

Yet at the same time there seems to be an issue about balance for John - he feels that students should have a good knowledge of basic science, he thinks that perhaps they don’t really get this on this course but he acknowledges that problem-based learning is attempting to help students to acquire highly developed problem-solving skills -skills he views as being needed in science: He tells me:

“it is trying to do, or trying to instil one of the greatest problems that there are with any sort of scientific problem solving, which is how to break the real problem down to an extent where you can use the scientific knowledge to solve it.”

John feels there is a need to enable students to have the scientific knowledge - the body of knowledge, and the problem-solving skills as well, and thinks that students on this course possibly have one without the other. For him there needs to be this balance:

“I think it's the balance of getting sufficient science into them and running it parallel to the approach to solving problems.”

However he goes on to say that these students with problem-solving skills seem to be what industry want:

“I think we may have produced a product that we didn't really envisage at the outset... I think we've produced a product that industry want. Certainly going by the reports come back from the training some of them are quite prepared to employ them straight away without them doing the final year.”

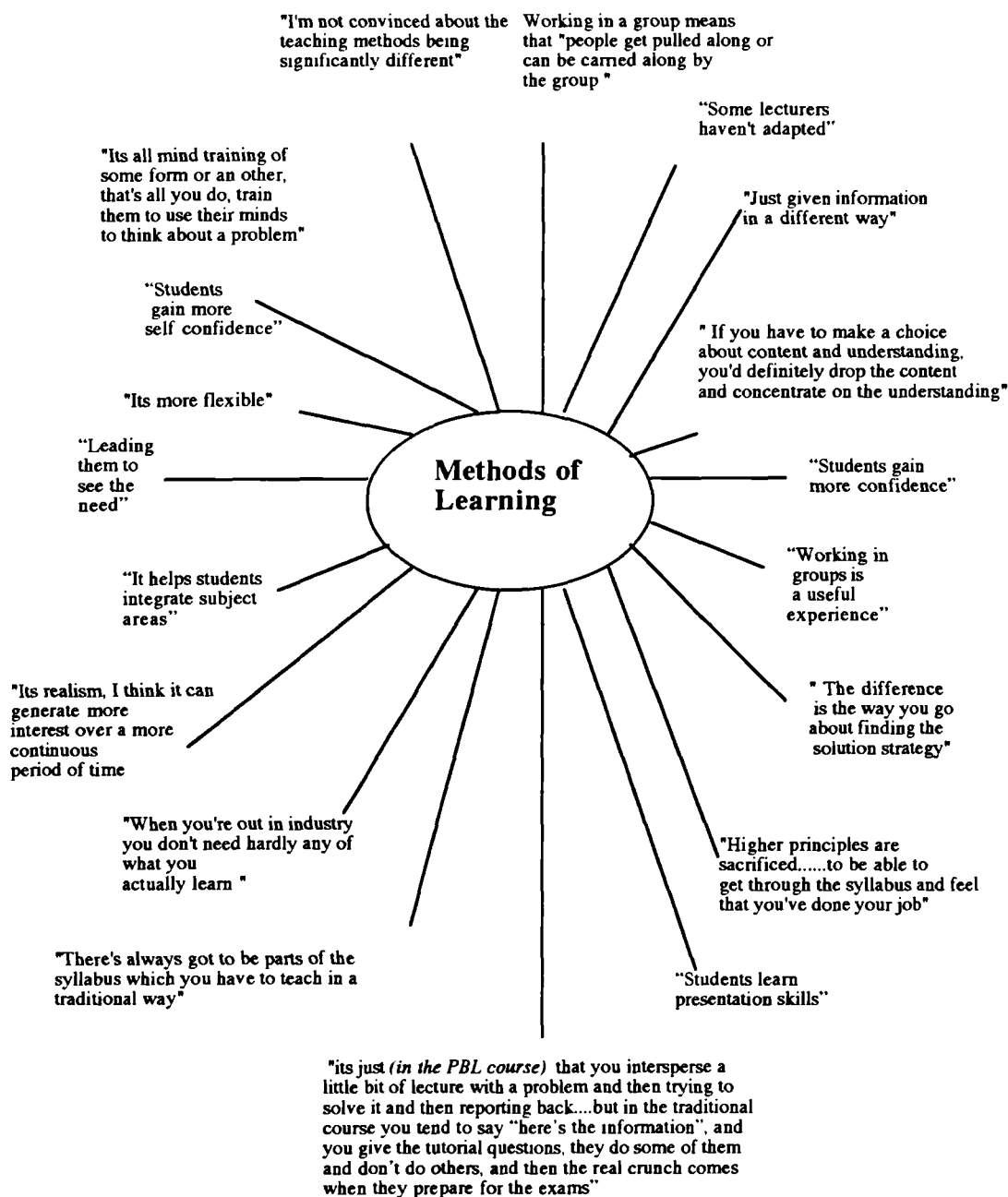
John thinks this is because problem-based learning is a way of learning which mimics the skills and abilities most used in industry, and therefore the students are able to adapt quickly from this course to the industrial setting. He tells me:

“I think when they get to industry they may be apparently much more usable immediately because they've seen some of the stuff and they're more *au fait* with that method of working. So I think it's realism, I think it can generate more interest over a more continuous period of time, and that may help them pick other stuff up.”

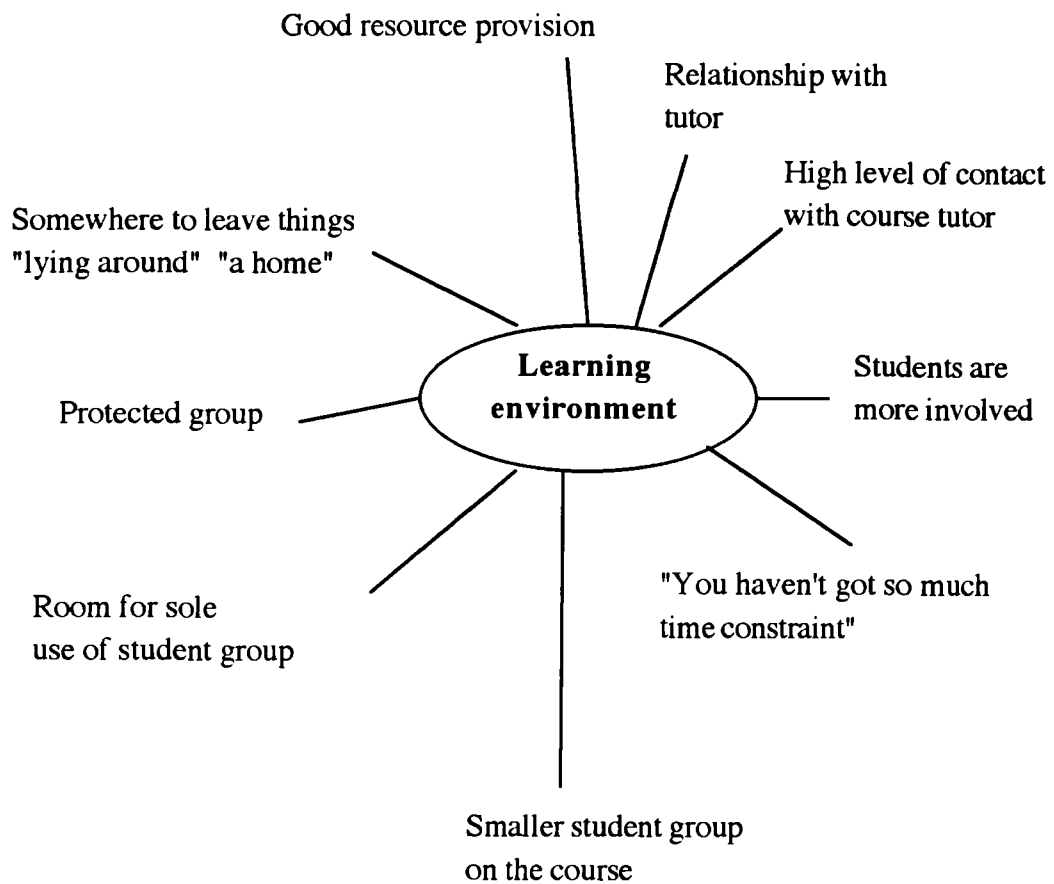
For John this method of learning is new, fun, stimulating and challenging. He thinks it's just another way of learning but that it isn't really much different from lecture-based courses. The students, he feels, gain other abilities such as greater confidence and problem-solving skills which are seemingly currently desired by industry, but his main concern is that students don't really gain the in-depth body of knowledge he feels they should have, he feels there should be a greater balance of skills and knowledge within the course. However perhaps one of John's final comments to me best sums up the way he sees problem-based learning:

“I think they're just different ways of starting the process off, whether it's problem-based or what you might call traditional. Because I don't think the traditional route is not problem-based learning. They're just given the information in a different way.”

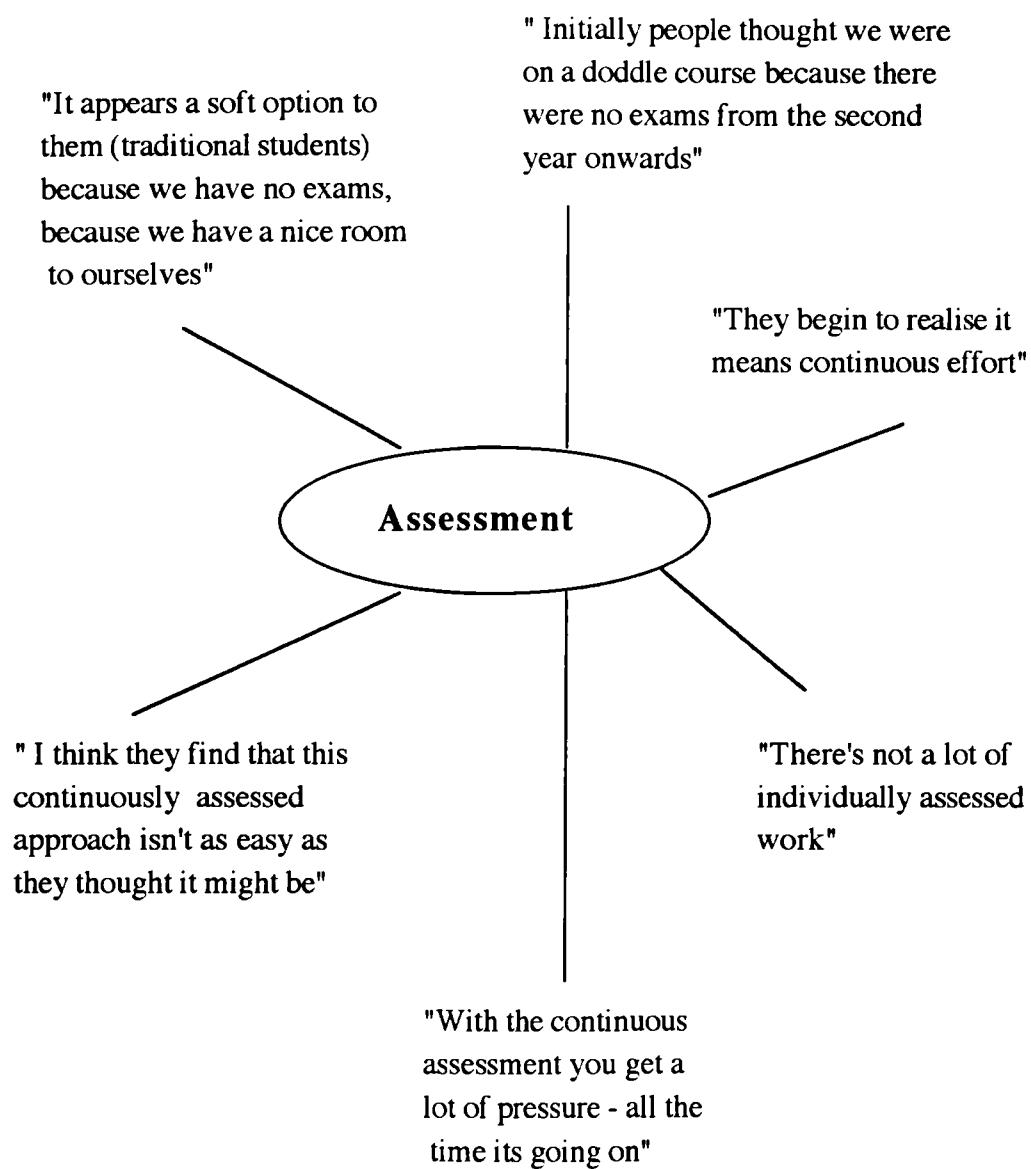
Maps of emerging themes



Maps of emerging themes



Maps of emerging themes



Problem-based learning and people's lives

As I spoke with students at Stanage many of them talked about problem-based learning in relation to their lives, but in a number of different ways. For some it was in relation to personal development, for others it was about acquiring high marks to get a Masters instead of a Diploma, for others it was about being valued as individuals, for many it was about feeling disempowered in some way. But for all of those I spoke with the thing which was at issue was the "self".

Thus at Stanage I began to consider how people talked about themselves, what problem-based learning meant for them, what their experiences were, and how they made sense of this in relation to their lives. MacLure and Marr (1988) argue that identity should not be seen as a stable entity which people possess, but something they use to make sense of themselves in relation to other people and the contexts in which they operate.

Students seemed to talk about issues relating to their self and their lives in five key areas. Inevitably issues overlapped across these areas and also across issues such as groups and the role of the facilitator.

The key areas were as follows:

- 1) Learning for your self
- 2) The disempowered self
- 3) Developing your self/Looking at your self
- 4) The unacknowledged self
- 5) The valued self

1) Learning for your self

The students talked about how problem-based learning enabled them to realise what they needed to know, learn and understand as individuals. Sometimes the need to learn for themselves caused conflict, for example for George there was a dilemma about the relationship between the aims of the study unit and his needs as a learner. He told me:

"you can be aware of what your personal learning needs are because you can actually see the goal posts in effect, so you can understand what you're lacking. But to actually focus on your personal needs to fit that criteria can be quite difficult, it can be a mismatch thing, in that you actually need to be fairly determined that you're going to make sure that's covered in the month or the 6 month between the reviews and stuff like that. I nearly said it (PBL) doesn't work, but I think it does if you're determined and aware and aware of your own needs but also aware and have a foresight in a study unit or skills group situation to actually use the opportunity when it arises"

Yet he had learned, through this PBL process, the need to be self-directed, to make his own decisions about what he needed to find out, while recognising the need to contain the learning into something was manageable for him:

“I think I certainly have a greater understanding of group work, group process. As an individual I now recognise that if I want to know it, I need to go and find it out, but I do recognise there are great limitations in how much I can do.”

Alice too described how this method of learning helped her to see her own needs as a learner:

“My experiences in some ways have been a lot better than my expectations. I don't know - I feel I've benefited a lot more on this course than on a course that would be different - I spoke to people on other courses and I haven't like said much, but our course seemed to be about looking at real issues and getting down to finding out about things and what you need to know and what your learning needs are, and in that sense I've like benefited from looking at what I need to know about and how I can learn those things really.”

For Sophy the issue of learning for herself was related to developing specific skills knowledge through problem-based learning, almost without realising it, and that often the realisation of these skills came through the acknowledgement of these skills by the group:

“sometimes I don't think I've learnt anything on this course and then I sort of realise I have! Just of sort of like knowledge as well . . . If I talk to people I work with like now I feel I've gone on a bit , a lot further than they have so I can see I've learnt quite a lot since I've been on this course. And I think you get a lot of that from the group situation, having the situation where people are acknowledging people's skills in the group and it's not just the tutor really.”

One of the key things that stood out for Ian about PBL was the discovery of being able to learn in a variety of ways - such as group work, playing games and role play. Ian also felt that this method of learning helped him to understand other people's perspectives and enabled him to learn how to make sense of some of the issues he would actually have to confront as a social worker. For him problem-based learning not only related to his present self, but also his future self, as a professional, so he saw it like this:

“it's actually creating a balance between your objective approach towards social work and your personal approach, creating a balance between the two, getting a synthesis between the two, getting a relationship going between the two”

Nicola talked of transition, of the way that many students felt de-skilled when they came on the course, but that as the course progressed they realised that they were actually able to learn from one another. She describes this and the way she realised how the students learnt for themselves, through each other, and talks of the part she played in this:

“A lot of people have talked about being de-skilled, that was always banded about a lot at the beginning. People - by definition you had to have some experience in order to do this course . And a lot of people had, and I mean I was deputy manager in a Children’s Home. I mean I never felt particularly skilled so I don’t think I felt very de-skilled. No, but, you had this responsibility and suddenly you haven’t, and people - the assumption is you know nothing, but they’ve tried to overcome that because they’ve tried to say, “Well, you learn from each other,” . And we did a 2 week block on Children’s Homes recently and there were 3 of us in the group who funnily enough had actually worked in the same Children’s Home. So we practically took over the 2 weeks, but that’s because there’s a need for you to share your knowledge, to say, “Well, I know this,” and “I’m the expert for this bit.”

Olive also seemed to have developed a different understanding of knowledge through doing problem-based learning- that the knowledge she acquired on this course was more about building up information which she could refer back to - knowledge for her self. However this issue of knowledge and knowledge acquisition also seemed to be an area of conflict:

“I suppose sometimes you just want a consultation, or a lecturer to tell you, or a facilitator just to say, “This is it, this is the bizz.” And it like sometimes it would be so nice just to get the information, you know, because sometimes you just miss it, no matter how many books you read or whatever, you don’t see it”

For Olive this type of learning encompassed a number of issues around self-discovery and personal growth, but there was also a concern about what she had invested in it and whether it would give her the knowledge and qualification to do a job at the end of it all.

2) The disempowered self

Many of the students I spoke with felt that as people they were disempowered within the course. It was as if things which they felt were important were being ignored - by the group, themselves, the staff, the method of assessment or the culture within the course. Sophy felt disempowered by the assessment deadline, she felt that if the time when students had to hand in work was negotiable then the learning rather than the deadline would then be the priority. For her to some extent, it displaced her ability to organise her own learning, she told me:

“the child study involved sort of going to nurseries, a lot of stuff you had to do for yourself outside the course and it all had to be in by January and lots of people had problems organising nurseries: I was one; which meant it was impossible to do my work without taking up all my Christmas holidays and I went and explained, “Well I’m not going to learn as much as if I’d had an extra couple of weeks and I’d like an extra bit of time so I could learn more as I was writing up the essay”. But because of this 80 students it’s really difficult to organise different essays coming in at different times and get them into the marking systems and what-not, there’s no negotiation really. So it’s sort of like, it’s very much that the learning becomes less of a priority than the deadline, and the deadline’s the priority and the bureaucracy, the dilemma around it about how they’re going to organise it. So that takes away from the fact that you’re supposed to be adult and organising your own learning in your own time with your own skills and techniques that you picked up through the years. So it takes away a little bit from that.”

Rob felt disempowered by the conflict because the Dip SW and the Masters were run in parallel:

I was quite taken with what I thought would be a group learning process, that kind of interdependence on other people which is helpful for me because I’m a bit of a procrastinator. . . I think the course has got too large an intake for that to work well and it has too many diverse pulls. The running of the Masters alongside the Dip SW creates a conflict anyway because of the people aiming towards getting high grades and people who are aiming just to get their Dip SW and go off and do the work.

Sophy too felt that students were disempowered by the course having a Masters programme in parallel; which she saw as almost encouraging students to meet their own needs and not those of the group as a whole, she explained:

“It hasn’t lived up to expectations of everyone sitting round and sharing and everyone learning, because, I think, of this outside thing of I’ve got to get my Masters and it’s me who matters. And you can blame people for doing that because people have different reasons for wanting a Masters which would affect their whole life, so that was the main reason why it’s fell down.”

Yet Sophy also described how issues for people within the group were not always dealt with. At the beginning of each meeting the students go around the group and say how they are feeling; Sophy saw that as something as both positive and negative:

“We always have a session at the beginning of the session and we talk about our feelings. And it’s quite nice because it’s respecting people coming in with different things and they’re not just robots, that they’re separate lives and whatever. But actually very little is done with it at the end of the day, it’s just an off load and it’s almost like a routine now, people can get out of”

However she went on to explain that sometimes horrendous things have happened to people and the group choose not to do or say anything about it. Rob felt that people had chosen to opt out of self disclosure within the groups, because there was a lack of safety within them, he saw it like this:

“There are times when it feels there’s almost a kind of game playing going on, quite risky game playing going on: We’re set up into groups, we’re encouraged to open out, to share feelings et cetera, et cetera without any real sense of there being a safety net. It’s like “okay do all that, but set up your own safety nets”. . . I think, and the potential damage that’s around there for individuals, not providing the safety nets for that.

Another key issue around disempowerment for Rob was the level of staff and student interaction. He felt there was a lack of communication and told me that students were very dependent on secretaries for information. So to a large extent he felt that as a student he had no voice, he felt disempowered by something which he saw as a bureaucratic system. He put it like this:

“So to my mind it feels there is an element of hanging on to power because to devolve it to the students is like we’re bating them, kind of. It’s a bit like residential workers saying to kids “Who are you to know “”. The chances are they know very well because of how it feels. . . The academic staff have certain things they need to ensure happen but there feels to me as a students “we know and they don’t” what is best for us, and that’s the bit that makes me feel- I sometimes wonder whether we are mature students or not.”

Rob felt that his knowledge and experience were not valued, and thus he began to feel that if staff were going to control the course then they should also have greater input into the teaching as well. George too felt that the staff should have more input into the course, because for him as an individual he felt the course did not wholly cater for his learning needs. He said that as most other people on the course were graduates they perhaps didn’t need what he called ‘the basics’, but he felt that he did. He needed all the help he could get. So to some extent for him there was a dilemma:

“for me personally as an individual, I much prefer it to being sat in 8 lectures a week, but recognise that there needs to be a way of trying to bring information from staff to students . And for me that’s where a lot of the issues lie, I don’t feel I receive adequate information. So whereas I would prefer it to be delivered verbally like a lecture, supported by handouts, I do like the sort of PBL group process.”

On a practical note George felt that the structure of the course was disempowering: firstly because it didn’t seem to take account of people’s lives - families, location and travelling, and secondly because students chose to opt out of group meetings because of issues beyond the course or because of wanting to work on their own assignments.

He exemplified it:

“I think that this morning, today the majority of student have only got one meeting, one group that's an hour and a half skills group meeting. There are support groups - but there's assessed work so they won't be here, the majority won't be here . You're talking about students travelling from Swindon, all over Wiltshire, Oxford, Exeter, Devon, South Devon, for one and a half hours. And I'm just wondering whether it would be better to say we start at 9 and finish at 5 or 10 till 4, the whole day, for 3 days a week, and it's timetabled so you have 1 or 2 days a week free each week for private study. Because that's what you're expected to do for the rest of the day .”

Both Sophy and Olive talked of being disempowered by language - the language of needing to be saying and thinking the right things. For Olive it seemed:

“it's like you've got to have the right opinions . You've got to say the right thing at the right time, you know. You've got to be seen to be thinking and saying the right thing”.

For her there was the feeling of being judged if her opinions did not fit with what was expected.

Sophy too saw this as an issue, she felt in some ways it was helpful, for example in the area of discrimination she thought it was important that students should be encouraged not to be discriminatory. However she described how this was also something which was disempowering for individuals:

“And I think on this course, there's definitely a feeling that you cannot be discriminatory in anyway which is good. But it also doesn't allow people to explore their prejudices. It did for a little bit, we had a session where we could explore our own prejudices, but it does clam people up, especially in a group, and someone comes out with a very sexist remark . Everyone pounces on them basically, it's like “Oh where does that come from, oh is that what you've been thinking all the time, you shouldn't be saying that, it's discrimination”. So in that sense it might stop the learning, if you pounce on people, because they just clam up and they won't explore why they think that”.

3) Developing your self/Looking at your self

Learning through problem-based learning seemed to enable students to not only learn knowledge and skills, but develop beyond this. Thus it seemed to be a method of learning which linked personal meaning and objective knowledge, which enabled students to synthesise the experiences they were having in learning into something which enabled personal growth.

Alice felt she had grown through doing the course. She put it like this:

“I’m sort of really enjoying the course ‘cos it’s just sort of made me think about lots of things and just sort of like raised my awareness about different things. I actually see a sort of pattern of how I was in the beginning and how I’m changing in the group setting. And in the beginning I was always sort of like quite challenging about things, different things in groups and stuff and I’m sort of going on from there and I spend most of my life working out where I’m coming from, what I believe in and stuff around social work really in general”

Jackie told me that she finds it difficult to separate out PBL from the rest of her life, she sees the two as being linked, she put it like this:

“By and large I like it and I enjoy it. I find, I mean, I think I find it very difficult to talk about PBL in the course separately from me as a person and my kind of life pattern and processes. Because what I think PBL does is that it illustrates to me very clearly the areas of my life which need attention”

Clare too felt:

“I think it’s a very valuable approach. It seems to allow more in terms of personal learning and personal growth and development than other educational approaches”

and went on to explain how important she felt this to be in terms of being a social worker in the future:

“I think awareness and insight of ourselves and our needs, it’s very important in social work that you have that self-awareness. That you’re aware of your needs, you’re aware of your own values and perceptions and reactions and so on, as a worker going out into the field”

For Olive the issue of developing confidence was quite important. Coming on the course had meant changes in her life, many new changes, gains and losses, things which had affected her confidence. The realisation of the skills that she had acquired on the course enabled Olive to “survive on placement” and to develop a new confidence.

“I felt quite differently towards the course coming back off placement because for me I had been given some of the skills that I needed to actually survive on placement . . . So I think it does build on your confidence, although the first block, I would say your confidence is quite - cos you’re coping with so many new concepts and so many new ways of working. And you’re grieving about whatever you’ve left - for me, I was grieving about leaving a secure well-paid job, you know . And thinking, “What the hell am I doing here, you know, at 45, you know, this is ridiculous.”

Olive saw the course as not only acquiring skills to be a professional but also developing her own knowledge and an understanding of herself. For example she described a time when the issues of parenting arose through various parts of the course and she revisited her own child rearing. For her this brought about a reassurance in what she had done, but also a realisation of the relationship between her self and the course:

MSB You talked about going on a trail, if this course was a journey, what sort of journey would it be for you?

Olive: Quite a lot about a self discovery I think, because I've got 3 kids, it's actually brought up quite a lot of stuff about socialising children and what is right, you know, what you should do as a parent, specially doing the child protection and now we're doing adolescence. And it's actually been more reassuring rather than threatening. Sort of part of it has been a review of how I did, and having a look at my own practice of child rearing. which has brought up quite a lot of painful stuff, but it's also been quite reassuring as well, it's not been totally throwing, and I tend to use that from time to time, you know. Part of it is about getting rid of stuff and moving on, and it's about acquiring skills as well. I am in the process of acquiring skills, I'm not there. And an awareness that there are things I do want to be acquired.

Nicola described the transition that had taken place for her through learning in this way, it helped her to form opinions about issues which she realised were fundamental:

“ I think I'm one of these people who never really had much of an opinion about anything, but I think I'm learning that it's sometimes a good idea. I think I'm one of these people who wants to placate everybody, and make it all all right, and see everything from everybody's point of view, which I think is a bit of a Social Worker's dilemma . It's important in some ways, but it means that you might never really think for yourself, “Well what do I think about this?” and I think in that sense this course has enabled me to form some opinions about things . Things that are very fundamental really and you think, “Well yeah, that's right.” We had this discussion today about disability and access, and if it's not something you've ever really thought about, when you do start to think about it, it's absolutely ridiculous that people can't get into shops or get on a bus. And this building is appalling, appallingly inaccessible . So it's right to have strong opinions.”

4) The unacknowledged self

For some of the students on the course there was a feeling that some issues were not acknowledged either within the course, within the university or both. These were issues such as the relationship between students being encouraged not to be discriminatory and the lack of people with disabilities who were on the course.

For example, Alice told me that there was a large focus on anti-discrimination throughout the course but that in reality the course didn't cater for people with disabilities, single parents. . . for her this was a gap in the relationship between what they were learning and the harsh realities within the university culture.

“I don't really think this course has achieved anything really in terms of anti-discrimination. I don't know - I'm just talking from my own sort of perspective or whatever. I don't think, it's partly to do with like timetabling, but I don't think it's geared up for firstly people with disabilities - and the University as a whole, or just it hasn't, it doesn't really challenge any, I don't know, it doesn't seem to - like I'm a single parent and I've just got a grant - I'm not the only single parent on this course but I know that financially I'm the only single parent on this course that just gets a CCETSW grant and because of that and the support that the University gives you in terms of those situations, and things like holiday, I just don't think this course is, makes up for those things.”

Another issue for Clare was that of the relationship between this course and the university. She felt that as it was a professional course that it was also about students and their lives, but that often these issues were dealt with in an academic forum which wasn't always appropriate, she put it like this:

“everything round the course is dealt with in purely academic terms. Whereas sometimes I feel that we've got a dual place cos we're half in the world of employment and we're half in the university as students, and I don't think that's particularly recognised by the university establishment”

George too felt that the course tended not to acknowledge students' priorities, that the things which students saw as big issues were not really understood by the staff. He thought part of this was because for many students doing the course it was a career move which affected their lives beyond the course:

"I think the students have power and a voice on all the management groups within this department, but I think sometimes the issues are so big in students' lives that they don't see that as an issue, they don't see it as a priority in student life. Because when you compare it to the normal age group of students, of 18 to 21 year olds I think it's a profession that the learning experience is a school experience, whereas people here are just taking 2 years out for a specific reason, I think it's sort of a career move, more so than primarily a learning experience".

One of the things that attracted Ian to the course was that he felt it would enable him to explore his own perspectives and experiences in relation to what he was studying, that an exploration of his self was to be part of the learning process. However he found that although this occurred to some extent, he still felt:

"the PBL course hasn't taken into account that there's a continual interaction between your own experiences and your particular social work philosophy or perspective"

He felt that:

"The training's got as much to do with emotional training as it has to do with learning facts"

- and to some extent he felt this was not really acknowledged overtly in the course.

5) The valued self

Some of the students I spoke with valued the fact that who they were and the experiences they brought to the course were acknowledged and valued. Jackie felt that PBL was an approach which recognised that the learner had a history and thought that the learner related to the course with that history, and she valued it for this, she explained:

"I think that's one of the things I like about PBL, it begins to, kind of recognise where you were at before you can go anywhere. I mean, I think ideally I would like to see it doing that more, but I think it can't at the moment because I think the culture from which most students come is not really a self-reflective culture and I think it should be but it isn't. I mean I think in that respect PBL is quite pioneering, but I think I want it to be more pioneering in that area, you know. But the other limitation is the staff input because if you've got a lot of staff who've come up in academic culture which also hasn't given them the support, the encouragement to be self-reflective and kind of aware of their own patterns they're not going to be able to facilitate that."

Jackie gave an example of how people's experiences had been used and valued in the group, for her this was a very rich way of learning:

“some of the most useful study sessions, I’ve been in, - I can remember one in the Autumn term where we went round the room and people shared what they knew about elderly people. And it was incredibly useful and moving. And like some people had had a lot of experience with elderly relatives, and some people had worked with elderly people and some people had felt - the facilitator had felt he’s becoming an elderly person . And it was just very, very rich, and I think that level of personalising study, is for me, a very important aspect of the learning process and I think it’s empowering actually ‘cos it helps people see that they know a huge amount without ever having to open a book”

Clare also saw PBL as something which enabled students to use and value their experiences, and she saw this being reflected in a shift in the group leaning process. She described how the group had focussed and gathering information initially, but then they began to draw more on their own experiences. Clare saw this as partly being more used to working in a group, but also said:

“We’re more confident and more able to value our own experiences - life experience as well as what you did in work”

Clare felt there were still dilemmas around the approach about whether they gained enough information and knowledge, but she did feel that gaining personal awareness, something she saw as a feature of this course was very important in social work. She also felt very much that this way of learning was positive in the way it valued student experience, and summarised how she saw PBL like this:

“I think PBL has some very laudable aims in terms of valuing what students bring to the course and wanting to build on that and use it. Where perhaps it isn’t strong is, at the moment anyway, identifying where the gaps are and assisting people in actually filling those gaps to get a rounded body of experience and knowledge”

Dimensions of Learner Experience: similarities between students' stances and domains

Ali, Gimmer University

Personal stance		Discovering my self (enabling disjunction)			
Pedagogical stance		Strategic Pedagogy (enabling disjunction)			
Interactional stance			Connecting experience through interaction (enabling disjunction)		

Charles, Gimmer University

Personal stance		Discovering my self (enabling disjunction)			
Pedagogical stance		Strategic Pedagogy (enabling disjunction)			
Interactional stance			Connecting experience through interaction (enabling disjunction)		

Graham, Baslow University

Personal stance		Discovering my self (disabling disjunction)			
Pedagogical stance		Strategic Pedagogy (enabling disjunction)			
Interactional stance			Connecting experience through interaction (enabling disjunction)		

Diagram 1 illustrating similarities between students' stances and domains

Jack, Lember University

Personal stance		Discovering my self (enabling disjunction)			
Pedagogical stance		Strategic Pedagogy (disabling disjunction)			
Interactional stance		Validated knowing through 'real talk' (disabling disjunction)			

William, Lember University

Personal stance		Discovering my self (enabling disjunction)			
Pedagogical stance		Strategic Pedagogy (enabling disjunction)			
Interactional stance		Validated knowing through 'real talk' (disabling and enabling disjunction)			

Mike, Lember University

Personal stance		Discovering my self (enabling disjunction)			
Pedagogical stance		Strategic Pedagogy (enabling disjunction)			
Interactional stance		Validated knowing through 'real talk' (enabling disjunction)			

Diagram 2 illustrating similarities between students' stances and domains

Emily, Baslow University

Personal
stance

Pedagogical
stance

Interactional
stance

		Defining my future self (dabling dysnaction)		
		Strategic Pedagogy (dabling dysnaction)		
		Connecting experience through interaction (enabling dysnaction)		

Fiona, Baslow University

Personal
stance

Pedagogical
stance

Interactional
stance

		Defining my future self (dabling dysnaction)		
		Strategic Pedagogy (dabling dysnaction)		
		Connecting experience through interaction (enabling dysnaction)		

Bill, Lember University

Personal
stance

Pedagogical
stance

Interactional
stance

		Defining my future self (enabling dysnaction)		
		Strategic Pedagogy (enabling dysnaction)		
		Connecting experience through interaction (enabling dysnaction)		

Luke, Gimmer University

Personal
stance

Pedagogical
stance

Interactional
stance

		Defining my future self (enabling dysnaction)		
		Strategic Pedagogy (enabling dysnaction)		
		Connecting experience through interaction (enabling dysnaction)		

Diagram 3 illustrating similarities between students' stances and domains:

Jenny, Gimmer University

Personal stance			Placing my self in relation to my life-world (enabling disjunction)	
Pedagogical stance		Strategic Pedagogy (enabling disjunction)		
Interactional stance			Connecting experience through interaction (enabling disjunction)	

Stuart, Lember University

Personal stance			Placing my self in relation to my life-world (enabling disjunction)	
Pedagogical stance		Strategic Pedagogy (enabling disjunction)		
Interactional stance			Connecting experience through interaction (enabling disjunction)	

Diagram 4 illustrating similarities between students' stances and domains

Olive, Stanage University

Personal stance			Placing my self in relation to my life-world (enabling dysfunction)	
Pedagogical stance		Strategic Pedagogy (enabling dysfunction)		
Interactional stance				Transactional dialogue (enabling dysfunction)

Douglas, Lemberg University

Personal stance			Placing my self in relation to my life-world (enabling dysfunction)	
Pedagogical stance		Strategic Pedagogy (enabling dysfunction)		
Interactional stance				Transactional dialogue (enabling dysfunction)

Diagram 5 illustrating similarities between students' stances and domains